

DOCUMENT RESUME

ED 410 970

IR 056 464

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TITLE Citizen Access to Government and Other Information.
INSTITUTION Portland State Coll., OR.
SPONS AGENCY Department of Education, Washington, DC.
PUB DATE 1997-08-12
NOTE 377p.
PUB TYPE Reports - Descriptive (141)
EDRS PRICE MF01/PC16 Plus Postage.
DESCRIPTORS *Cooperative Programs; *Federal Aid; *Grants; *Library Development; Library Funding; Library Networks; Library Services; *Program Evaluation; Shared Resources and Services; Staff Development
IDENTIFIERS *Oregon (Portland)

ABSTRACT

This report presents the results of a June 1997 onsite evaluation of a U.S. Department of Education HEA II-B grant awarded to the Portland Area Library System (PORTALS) during the period October 1, 1995 to September 30, 1997. The grant offered an opportunity to increase collaboration among PORTALS members via the activities of network deployment, information resources and services provision, and collective formative and summative evaluation. In addition to PORTALS, grant participants include: Multnomah County Library, Oregon Historical Society, and the Oregon State Library. The report looks at each grant participant's activities covering: project objectives; chronology of events and accomplishments to date; staff development activities; principal project work products; dissemination of project results; evaluation activities; lessons learned; next steps; and recommendations. Substantially improved citizen access to federal, state, county, and city government information in Oregon as a result of the grant are documented. The report closes with overall conclusions and recommendations to PORTALS. Contains extensive appendices. (Author/AEF)

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Onsite Evaluation of the U.S. Department of Education HEA II-B R039D50010-95A funded project

Citizen Access to Government and other Information

October 1, 1995 to September 30, 1997

For the

Portland Area Library System (PORTALS)

Portland State University

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Portland, OR 97207-1151

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Date: August 12th 1997

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Joe Ryan

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Executive Summary

This report presents the results of a June 1997 onsite evaluation of a U.S. Department of Education HEA II-B grant awarded to the Portland Area Library System (PORTALS) during the period October 1, 1995 to September 30 1997. In addition to PORTALS, grant participants include: Multnomah County Library (MCL), Oregon Historical Society (OHS), and the Oregon State Library (OSL). The Onsite Evaluator was Joe Ryan. Dr. Charles R. McClure, the Evaluation Consultant, reviewed Ryan's report and the report was reviewed by, and discussed with PORTALS interim Executive Director, Dr. Jim Kopp. The goal of this onsite evaluation was to summarize for PORTALS and mirror for grant participants their activities in key areas (identified above) so as to contribute to their own ongoing self-assessment. The report looks at each grant participant's activities covering:

- **Project Objectives:** This section identifies the initial project objectives (using text from the grant proposal) and summarizes activity to date.
- **Chronology of Events and Accomplishments to Date:** This section highlights, in chronological fashion, key project activities, milestones, outcomes, and accomplishments to date given the project's objectives. Omitted are regular, ongoing, phone conversations or meetings at various conferences between the Evaluation Consultant and PORTALS staff or project participants.
- **Staff Development Activities:** This section summarizes efforts by grant participants to obtain education and training for staff to better implement the grant objectives.
- **Principal Project Work Products:** This section lists and describes the major products, services, and other outcomes as a result of the grant.
- **Dissemination of Project Results:** This section identifies specific ways grant participants disseminated project findings to the local, state, and national communities and the profession including publications, videos, press releases, presentations, external training sessions, etc.
- **Evaluation Activities:** This section identifies the specific ways each participant evaluated the project.
- **Lessons Learned:** This section identifies significant lessons learned by project participants which may also be of interest to similar organizations in other settings.
- **Next Steps:** This section suggests next steps to be taken as this grant period ends and to advance the project's objectives after the funding period.
- **Recommendations:** This section contains the evaluators recommendations for improvement based on the onsite visit.

The report closes with the evaluators overall conclusions and recommendations to PORTALS. The grant specifically does not examine PORTALS non-grant activities, PORTALS members (other than those who directly participated in the grant), and PORTALS internal management, nor is the evaluation a financial audit or examination of accounting practices related to the grant.

Method

The consultant divided his activities into three principal phases:

- **Preparation for data collection:** including reading of available documentation; determination of evaluation objectives and construction of method and interview protocols in consultation with the Evaluation Consultant and PORTALS Executive Director prior to his departure; an evaluation of the project participants web sites (see Appendix P-1); logistical arrangements; preparation of interview protocols; and, drafting of an initial report indicating what was tentatively known.
- **Onsite Visit June 3 - June 20 1997:** The Onsite Evaluator visited each grant participant in order to collect data including initial interviews and focus groups at each site and subsequent follow-up as appropriate. The Onsite Evaluator conducted approximately thirty interviews during his visit. For a complete schedule of interviews see Appendix P-2. A key informant at each site checked a draft of the basic factual findings for accuracy.
- **Data Analysis and Final Report Preparation:** The Onsite Evaluator and Evaluation Consultant examined the results of data collection activities and prepared a draft report submitted July 7, 1997 to the interim Executive Director.

The interim Executive Director, Evaluation Consultant, and Onsite Evaluator conducted a conference call on July 22, 1997 to review the draft report. The evaluators submitted this final report on August 7, 1997.

The reader is referred to the detailed findings and recommendations provided for each of the grant participants in the body of the report. In general, this report documents substantially improved citizen access to federal, state, county, and city government information in Oregon as the result of the U.S. Department of Education HEA II-B grant to the Portland Area Library System (PORTALS). This grant enabled the:

- Conversion of important historic government and other materials to digital format,
- Creation of new government information in digital format,
- Organization of government information in more useful ways for citizen access,
- Change in internal institutional practice necessary to better deliver government information to citizens via electronic networks,
- Increased capacity to deliver information via world wide web pages on electronic networks,
- Ability to receive electronic government information extended to rural Oregon public libraries.

The improved access to government information is due to the significant progress made to date by Oregon State Library, Multnomah County Library, and the Oregon Historical Society toward meeting their grant objectives. PORTALS itself will need to make additional efforts during the remaining grant period in order to achieve its own programmatic objectives under the grant.

I. Introduction

The Portland Area Library System (PORTALS) administers and participates in a U.S. Department of Education HEA II-B grant, "Citizen access to government and other information" during the period October 1, 1995 to September 30 1997.¹ In addition to PORTALS, grant recipients include Multnomah County Library (MCL), Oregon Historical Society (OHS), and the Oregon State Library (OSL).² This report presents one element of the evaluation component of the grant, the results of an onsite evaluation of the project conducted by Joe Ryan during June 1997, reviewed by Dr. Charles R. McClure, project Evaluation Consultant, and discussed with interim Executive Director, Dr. Jim Kopp. The purpose of the external evaluation was to examine at each site:

- **Project Objectives:** Identify initial project objectives and summarizes activity to date.
- **Chronology of Events and Accomplishments to Date:** Highlight, in chronological fashion, key project activities, milestones, outcomes, and accomplishments including principal work products to date given the project's objectives.
- **Staff Development Activities:** Note efforts by grant participants to obtain education and training for staff to better implement the grant objectives.
- **Principal Project Work Products:** List and describe the major products, services, and other outcomes as a result of the grant.
- **Dissemination of Project Results:** Identify specific ways grant participants disseminated project findings to the local, state, and national communities and the profession including publications, videos, press releases, presentations, external training sessions, etc.
- **Evaluation Activities:** Identify specific ways each participant used to evaluate the project both internally and using user evaluations. What conclusions did each site make based on these evaluation techniques? What does each project participant think about the utility of their evaluation methods to date? Identify specific plans for future evaluation?
- **Lessons Learned:** Identify lessons learned by project participants of potential interest to similar organizations in other settings.
- **Next Steps:** Suggest next steps to be taken to advance the project's objectives after the funding period.

The onsite evaluation was specifically not an examination of PORTALS members (other than the grant activities of those who directly participated in the grant), PORTALS non-grant activities or internal management, nor was the evaluation a financial audit of grant funds expended by PORTALS or grant recipients, nor was there any evaluation of the subsequent HEA II-B grant installments to PORTALS.

The goal of this onsite evaluation was to summarize for PORTALS and mirror for grant participants their activities in key areas (identified above) so as to contribute to their own ongoing self-assessment. The consultant divided his activities into three principal phases:

¹ Subsequently referred to as "the grant" throughout the report.

² Subsequently referred to as the "grant participants" throughout the report.

- **Preparation for data collection:** including reading of available documentation; determination of evaluation objectives and construction of method and interview protocols in consultation with the Evaluation Consultant and PORTALS Executive Director prior to his departure; an evaluation of the project participants web sites; logistical arrangements; preparation of interview protocols; and, drafting of an initial report indicating what was tentatively known.
- **Onsite Visit June 3 - June 26 1997:** The Onsite Evaluator visited each grant participant in order to collect data including initial interviews at each site and subsequent follow-up as appropriate. The Onsite Evaluator conducted approximately thirty interviews during his visit. A key informant at each site checked a draft of the basic factual findings for accuracy.
- **Data Analysis and Final Report Preparation:** The Onsite Evaluator and Evaluation Consultant examined the results of data collection activities and prepared a draft report submitted July 7, 1997 to the interim Executive Director.

The interim Executive Director, Evaluation Consultant, and Onsite Evaluator conducted a telephone conference call on July 22, 1997 to review the draft report. The evaluators submitted this final report on August 12, 1997.

This report has the following organization. Background information on the grant and the evaluation component specifically, appear next. Then a brief section describing the method used to conduct the evaluation follows. The evaluation findings appear next, arranged by major project participant, i.e., PORTALS, OSL, MCL, and OHS. Each participant's section includes: project objectives and outcomes in brief, evaluator's activities, project chronology of events and accomplishments, staff development activities, project work products, dissemination efforts, evaluation efforts, lessons learned, next steps, and the evaluators' recommendations for each specific grant participant. The report concludes with overall recommendations by the evaluation team based on the findings from the onsite evaluation. The authors wish to acknowledge and thank the many project participants who provided information and otherwise made this evaluation possible (for a list of contacts see Appendix P-3). Special thanks to the key liaison personnel at each site used by the evaluator to coordinate site visits and cross-check findings including Rushton Brandis (OSL - JumpStart), Ernest Perez (OSL), Donna Reed (MCL), Sue Seyl (OHS), Karen Starr (PORTALS), and Todd Welch (OHS).

Background

In 1993, a group of the principal libraries in the Portland, Oregon region established the Portland Area Library System (PORTALS). The PORTALS web page <<http://www.portals.org/>> concisely state the organization's purpose: "PORTALS is an organization of sixteen public and private institutions committed to working cooperatively in order to expand and enrich the information resources and services necessary for the scholarly research activities of people in the greater Portland metro area." PORTALS provides a website (funded by the grant) with links to member institutions, their libraries, and their automated library catalogs; access to selected licensed electronic databases; information about reciprocal borrowing among members, and a variety of other services for its members. PORTALS members include: Clark College, George Fox University, Lewis & Clark College, Linfield College, Marylhurst College, Mount Hood Community College, Multnomah County Library (grant

participant), Oregon Graduate Institute of Science and Technology, Oregon Health Sciences University, Oregon Historical Society (grant participant), Pacific University, Portland Community College, Portland State University, Reed College, University of Portland, and Washington State University - Vancouver. The State of Oregon and member institutions provide funding for PORTALS.

On February 6, 1995 PORTALS applied for a U.S. Department of Education (DoEd) grant. DoED subsequently awarded a grant for the period October 1, 1995 - September 30, 1997. The Department of Education also awarded subsequent HEA II-B grants to PORTALS all of which DoED treats as one contract with PORTALS. However, the present evaluation is only for the first award (for the period October 1, 1995 - September 30, 1997). The first grant evaluated here had several objectives including:

- Deployment by PORTALS of a state-of-the-art, high bandwidth, multi-media capable network linking PORTALS members.
- Provision of a range of information resources and services accessible by PORTALS members with initial emphasis on local, state, and federal government information. These resources and services were either to be created locally, purchased and made accessible to PORTALS members, or identified and linked to the PORTALS web server.
- Development of ongoing mechanisms for formative and summative evaluation of network, information resources, and services. Formative evaluation would enable the grant participants to adjust their network, staff, resources, and services to meet its users' needs. Summative evaluation would document, in snapshot fashion, the grant participants' progress toward their objectives.

The grant offered an opportunity to increase collaboration among PORTALS members via the activities of network deployment, information resources and services provision, and collective formative and summative evaluation.

In early 1995, PORTALS Director of Network Development, Millard Johnson hired Dr. Charles R. McClure as a consultant to help PORTALS prepare the programmatic evaluation component of the grant proposal. Subsequently, Howard McGinn became the PORTALS Executive Director. Dr. McClure assumed the role of the grant project Evaluation Consultant with the funding of the grant in October 1995. In February 1996 after extensive consultation with project participants Dr. McClure developed a more detailed evaluation plan (See Appendix P-4). The evaluation plan stressed self assessment by participating PORTALS members, employment of a grant-funded, locally-based research assistant to conduct onsite data collection, with McClure advising as necessary. For various reasons, a locally-based research assistant could not be found or hired. This prompted a further revision to the evaluation plan after a January 22-23, 1997 site visit by Dr. McClure and discussion with the then PORTALS Executive Director, Howard McGinn (see Appendix P-5). The U.S. Department of Education subsequently approved this revision (see Appendix P-6). The Evaluation Consultant asked grant participants to submit self-evaluation reports in February 1997. Each of the grant participants filed an evaluation report with the exception of PORTALS itself (who did not file a report for reasons not known to the evaluators). For most of the participants, this was the first formal evaluation of their grant activities, conducted 15 months into the two year funding cycle. As part of the evaluation revision, PORTALS, with DOEd approval, hired Joe Ryan, a co-author of this document, to conduct an onsite evaluation which is the subject of the present report.

On March 31, 1997 Howard McGinn resigned his position as PORTALS Executive Director. On May 16, 1997 Dennis Gilbert, the Project Systems Programmer, resigned. Jim Kopp became interim Executive Director on June 2, 1997. Joe Ryan conducted his onsite visit and interviews June 3-17, 19-20, and 25, 1997. The evaluators filed a preliminary draft of the onsite evaluation report with the interim Executive Director on July 7, 1997. The interim Executive Director reviewed the report and discussed it with the Evaluation Consultant and Onsite Evaluator in a telephone conference call on July 22, 1997. The Evaluators filed a final report with the PORTALS interim Executive Director on August 12, 1997.

At present, the PORTALS staff consists of Jim Kopp, the interim Executive Director and Karen Starr, Director of Network Information. Tom Pfingsten became HEA II-B grant principal investigator (a position previously filled simultaneously by the Executive Director) in June 1997 and hired Lois Cohen as Grants Assistant to report to the principal investigator. The PORTALS Board agreed to replace the Project Systems Programmer with a Systems/Network Administrator (for job announcement see WWW: <http://www.portals.org/sysadmin.html>). The management of various licensed databases made available to PORTALS members (a non-grant activity) took an inordinate amount of the former Project Systems Programmer time hampering completion of certain components of the grant. A plan to move to vendor supported, Internet accessible licensed databases is nearing approval. PORTALS will create a technology advisory group to be appointed from members of PORTALS library automation and computer center staffs to assist the Project Systems Programmer and interim Executive Director in various grant activities.

A draft strategic planning document (Available: WWW: <http://www.portals.org/plantoplan.html>) announced after the onsite evaluator's visit notes that: "Over the next 12 months, PORTALS will engage in a strategic planning process. The goal of that process is to determine the development of the PORTALS consortia library and information environment in the metro area through the year 2000." The present report is opportune as PORTALS re-thinks its role and focuses on the scholarly information needs of its members. The present report of the onsite evaluation visit seeks to contribute to PORTALS strategic planning effort by documenting the activities associated with one of PORTALS major activities in the recent past and by offering suggestions based on the grant experience.

Onsite Evaluator's Biography in Brief

Joe Ryan is presently completing his Ph.D. under Dr. Charles R. McClure at Syracuse University's School of Information Studies. He has experience as a consultant and evaluator of projects in libraries, information centers, government organizations, non-profits, and corporations. Recent clients include IMF/World Bank; UN Food and Agriculture Organization; various Federal agencies such as the National Archives, Office of Management and Budget, Office of Technology Assessment; and, the State Library of North Carolina. He is also an author and publisher of a set of guides to International, U.S. Federal, State and Local government information on the Internet. Ryan received an M.L.S. from Syracuse University's School of Information Studies in 1978 and has built, worked in, or managed public, special, and academic libraries since then.

Method

Joe Ryan conducted the onsite evaluation after consultation with Dr. McClure, and the previous Executive Director, Howard McGinn. As a courtesy, the Evaluators kept Jim Kopp apprised of the Onsite Evaluator's plans prior to the interim Executive Director's formal appointment. The goal of this onsite evaluation was to summarize for PORTALS and mirror for grant participants their activities in key areas (identified above) so as to contribute to their own ongoing self-assessment. The consultant divided his activities into three principal phases:

- **Preparation for data collection:** including reading of available documentation; determination of evaluation objectives and construction of method and interview protocols in consultation with the Evaluation Consultant and PORTALS Executive Director prior to his departure; an evaluation of the project participants web sites (see Appendix P-1); logistical arrangements; preparation of interview protocols; and, drafting of an initial report indicating what was tentatively known.
- **Onsite Visit June 3 - June 26, 1997:** The Onsite Evaluator visited each grant participant in order to collect data including initial interviews at each site and subsequent follow-up as appropriate. The Onsite Evaluator conducted approximately thirty interviews during his visit. A key informant at each site checked a draft of the basic factual findings for accuracy.
- **Data Analysis and Final Report Preparation:** The Onsite Evaluator and Evaluation Consultant examined the results of data collection activities and prepared a draft report submitted July 7, 1997 to the interim Executive Director.

The interim Executive Director, Evaluation Consultant, and Onsite Evaluator conducted a telephone conference call on July 22, 1997 to review the draft report. The evaluators submitted this final report on August 12, 1997.

Efforts to Ensure Data Quality

Field evaluation is an art requiring quick assessment of opportunities and dangers to data quality on site. As Schatzman & Strauss (1973, p. vii) note:

...much of the research process consists of dealing with a flow of substantive discoveries and with field contingencies that variously modify the research; therefore the researcher is constantly attentive to options which are circumstantially presented to him, or which are created by him. Thus the field researcher is depicted as a *strategist*; for without linear-specific design - the researcher must develop procedure as he goes.

But field research is also a science, involving the systematic effort to reduce error due to researcher bias, incomplete or inaccurate data, and a host of other causes.

The Evaluators took a number of steps to reduce the threats to data quality in the present evaluation, both during data collection and later during analysis (as suggested by Guba & Lincoln, 1981; Miles & Huberman, 1994; Patton, 1990; and Schatzman & Strauss, 1973) including:

- Pre-structured research questions and interview instruments and pre-planned fieldwork.
- Chose standard, well-regarded, methods familiar to the evaluator and appropriate to the setting (McClure, 1994). Primary methods were qualitative (Miles & Huberman, 1994) including the use of documentary evidence, interviews (Spadley, 1979), focus groups (Kruger, 1988 and Morgan, 1988) and preparation of case studies (Stake, 1994 and Yin, 1994)
- Documented fully, research design decisions in writing and in discussions with the Evaluation Consultant.
- Sought dis-confirming and outsider evidence and points of view actively. Attempted, within the constraints of the visit, to interview stakeholders from multiple-perspectives.
- Responded flexibly to the new and unexpected opportunities the data offer.
- Documented fully the data collected. Where possible, the Onsite evaluator tape recorded interviews while maintaining interviewee confidentiality. Evaluators conducted follow-up interviews where necessary.
- Triangulated the data collected and used mixed methods. Data collected from one source was cross-checked with another. The Evaluators compared data collected using one method with answers obtained via another method. The Evaluators shared drafts of factual portions of the final report with a key liaison at each site to check for accuracy.
- Pre-structured data analysis and reporting as suggested by Miles & Huberman (1994). This approach was possible because most of the data collection was pre-structured and the intended shape of the final report was known.
- Checked the quality of the evidence by tracking the chain of evidence gathered to be sure it was firm enough to support statements made.

Each of these efforts and others increased the validity and reliability of the evaluation findings and provide a firm basis for making recommendations.

Organization of the Report

An evaluation of each grant participant's project will be presented in subsequent sections of the report. Grant participants are PORTALS itself; the Oregon State Library, its access to state government information effort and Project JumpStart grants to connect rural libraries to the Internet; the Multnomah County Library's efforts with local governments and the Internet; and, the Oregon Historical Society's efforts to digitize and make more accessible portions of its significant collection of Oregon materials via the Internet.

The report discusses the following areas for each grant participant evaluated: program objectives using language from the original grant proposal and outcomes to date in brief, the evaluator's activities in order to compile each portion of the report, a chronological summary of key events and accomplishments, staff development activities, project work products, efforts to disseminate project results, evaluation efforts, lessons learned, next steps, and the evaluators' recommendations.

This report documents substantially improved citizen access to federal, state, county, and city government information in Oregon as the result of the U.S. Department of Education HEA II-B grant to the Portland Area Library System (PORTALS). This grant enabled the:

- Conversion of important historic government and other materials to digital format,
- Creation of new government information in digital format,
- Organization of government information in more useful ways for citizen access,
- Change in internal institutional practice necessary to better deliver government information to citizens via electronic networks,
- Capacity improvements to deliver information via world wide web pages on electronic networks, and,
- Extension of the ability to receive electronic government information to rural Oregon public libraries.

This is due to the significant progress made to date by Oregon State Library, Multnomah County Library, and the Oregon Historical Society toward meeting their grant objectives. PORTALS itself must make additional efforts during the remaining grant period in order to achieve its own programmatic objectives under the grant.

II. Portland Area Library System (PORTALS)

This section of the report examines the PORTALS programmatic component of the HEA II-B grant including: program objectives using language from the original grant proposal and outcomes to date in brief, the evaluator's activities in order to compile this section of the report, a chronological summary of key events and accomplishments, staff development activities, project work products, efforts to disseminate project results, PORTALS evaluation efforts, lessons learned, next steps, and the evaluators' recommendations.

Project Objectives and Outcomes in Brief

This sub-section identifies initial project objectives (using text from the grant proposal) for the PORTALS portion of the HEA II-B grant and summarizes progress to date.

PORTALS will create a backbone network and provide supported access to government information resources over this network to its members. Specifically, PORTALS will:

- **Create a PORTALS backbone network:** This network will consist of a central PORTAL's server networked via T1 lines provided by NorthWest Net to fourteen servers located at each participating PORTALS institution with fourteen public multimedia workstations attached to these servers (1 at each institution). This network will in turn be accessible to other participants with some restrictions relating to copyright and vendor licensing.

At present, a PORTALS server and web page (<http://www.portals.org/>) is available via the Internet. But the PORTALS backbone network, a key component of the PORTALS portion of the grant, is not deployed. Further, PORTALS deployment during the grant period reviewed here is in question. The former Project Systems Programmer purchased and tested the hardware and developed software necessary to deploy the network prior to his resignation. The equipment needs to be installed at the PORTALS members sites, staff at these sites trained, and the maintenance programs tested. In addition, there is uncertainty as to the commitment of staff time necessary to maintain the backbone network once deployed. The present PORTALS interim Executive Director indicates that the deployment of the backbone network is a priority. PORTALS posted advertisements for a replacement for the Project Systems Programmer. Technically supporting the databases offered to the PORTALS membership took a significant portion of the former Project Systems Programmer time. A plan is in place to remove PORTALS from the database support business. Instead, PORTALS members will access vendor supported databases via a PORTALS authentication gateway. PORTALS hopes this will free the new Project Systems Programmer time for other activities including deployment of the backbone network. A technology advisory group to be appointed from members of PORTALS library automation and computer center staffs will be named to assist Project Systems Programmer and interim Executive Director in various grant activities.

- **Provide user friendly and supported access to government information and other resources over the backbone network:** The purpose of the backbone network is to provide the PORTALS membership with access to such content as: government sources of information (produced in part by PORTALS members the Oregon Historical Society and Multnomah County Library and funded in part by the grant), the PORTALS licensed databases (AIDSLINE, BIOSIS Previews, Business Abstracts, CINAHL, Compendex, Dissertation

Abstracts, ERIC, HealthSTAR, and MEDLINE, MLA Bibliography, Newspaper Abstracts, Periodical Abstracts Research II, PsychINFO, UnCover, and WORLDCAT), PORTALS administrative information, and other information of interest to the PORTALS membership. The provision of this content should be via a user-friendly interface and be supported by user training, staff development, and a virtual helpline.

Although a PORTALS backbone network is not deployed, PORTALS members can access a PORTALS website (<http://www.portals.org/>). The web page provides PORTALS members with access to PORTALS licensed databases, adequate basic links to federal, state, and county and city government information (including government information generated by PORTALS members funded by the grant), and PORTALS administrative information.

The web page user interface is adequate. However PORTALS did not conduct any user training or staff development related to the grant for the PORTALS membership, and did not deploy a proposed virtual helpline. User training, staff development, and the virtual helpline remain unlikely in the near term given present levels of PORTALS staffing.

- **Deploy a geographic information system:** The past PORTALS Executive Director Howard McGinn indicated to the Department of Education (See 3/25/97 letter from Howard McGinn to Christina Dunn, Appendix P-6) that the geographic information system mentioned in the proposal was the result of a PORTALS clerical error and the project would not be undertaken.
- **Conduct ongoing user-based evaluation and feedback:** PORTALS did not hire the local evaluator planned for in the grant proposal. PORTALS did not submit an evaluation report to the Evaluation Consultant in February 1997 (as did the other grant participants). The former Project Systems Programmer did experiment with web log analysis software using the PORTALS web page as the result of a January 1997 request of the Evaluation Consultant. But the former Project Systems Programmer found the software cumbersome to deploy and of minimal value in assessing how people use the PORTALS web page. The former Project Systems Programmer created a listserv related to the grant implementation in March 1996 but it did receive much use. The PORTALS Director of Network Information, included a "mailto" webmaster option³ in the PORTALS web page which receives 4-5 messages a week on average. With these exceptions, the evaluators are aware of no other efforts by PORTALS to conduct local, ongoing, user-based evaluation and feedback of its programmatic portion of the grant. User-based evaluation and feedback efforts remain unlikely in the near term given present levels of PORTALS staffing.

These grant activities are in addition to normal PORTALS operations and PORTALS overall administration of the HEA IIB grant not examined by the evaluators here.

³ The user of the PORTALS web page will see: PORTALS Webmaster underlined at the bottom of the opening page. To the network savvy, this indicates that if the user wants to send a message to the person in charge of the website (the webmaster) the user can click on the underlined portion and, assuming the user's web browser is configured properly, send a mail message to the person in charge. A significant problem with the mailto option is that it does not work from public terminals or for users who do not have e-mail accounts because a return e-mail is required. While there are ways around this requirement, they are generally beyond most users.

Summary of Evaluator's Activities

The Onsite Evaluator received several briefings by the Evaluation Consultant prior to the onsite visit. The Onsite Evaluator examined the Evaluation Consultant's reports and pertinent correspondence. The Onsite Evaluator examined all available documentation on the project including the original grant proposal. The Onsite Evaluator examined the PORTALS web page and other related Internet resources. As a result of a preliminary evaluation of the PORTALS website, the Onsite Evaluator provided the PORTALS webmaster with an extensive list (in ready to use HTML code format) of sources to improve the local, county, state, federal, and international sub-sections of the government information section of the PORTALS website. The Onsite Evaluator examined the PORTALS web site on May 1, 1997 and provided recommendations for next steps (see Appendix P-1). The Onsite Evaluator prepared a preliminary draft report indicating what was tentatively known and questions to be pursued during his onsite visit.

The Onsite Evaluator conducted his onsite visit June 3 to June 26, 1997. The evaluator met with the PORTALS interim Executive Director on June 3 and 25, 1997 using pre-structured interview protocols, and informally on other occasions. The Onsite Evaluator made a presentation to the PORTALS Council of Librarians at Pacific University, Forest Grove Oregon on June 4, 1997 regarding his onsite evaluation. On June 9, 1997 the Onsite Evaluator interviewed via telephone the former Project Systems Programmer, using pre-structured interview protocols. The evaluator interviewed the Director of Network Information, on June 12, 1997 using pre-structured interview protocols and informally on other occasions. The Onsite Evaluator collected follow up data via e-mail as needed.

Chronological Summary of Key Events and Accomplishments

Summarized, in chronological fashion below, are key activities, milestones, outcomes, and accomplishments including principal work products to date given the project's objectives. Omitted are regular, ongoing, phone conversations or meetings at various conferences between the Evaluation Consultant and PORTALS staff or project participants.

7/21/93	PORTALS founded
Fall 1993	Dennis Gilbert hired as Project Systems Programmer
1994-97	Project Systems Programmer develops and tests prototype of PORTALS backbone network
Summer 1995	PORTALS web page begun < http://www.portals.org/ >
8/95	Howard McGinn begins as PORTALS Executive Director
10/1/95	HEA II-B grant begins
10/95	Millard Johnson, previous Director of Network Development, leaves.
10/30/95	Presentation on the HEA II-B grant to the Fall Coalition for Networked Information meeting in Portland.
11/1/95	Charles McClure, Evaluation Consultant, meets grant principals in Portland.

- 12/19/95 Charles McClure, evaluation consultant conducts conference call with grant principals.
- 12/28/95 Purchase of 14 Sun Sparc 5 stations for backbone network.
- 1/22/96 Purchase of 14 Pentium microcomputers for backbone network.
- 3/96 Project Systems Programmer creates a listserv related to the grant implementation which did not receive much use.
- Summer 1996
to 5/97 Project Systems Programmer actively involved in loading and maintaining PORTALS licensed databases. This requires more staff time than expected, indeed it is a full time job by itself.
- 8/96 Purchase and installation of Sun Ultra 3000e (was to be Sun Sparc 1000e and CD-ROM Jukebox but better technology was available, change approved by Christina Dunn 6/18/96).
- 8/96 Charles McClure, Evaluation Consultant and Howard McGinn, Executive Director meet in Seattle to review grant status.
- 9/1/96 Karen Starr, Director of Network Information, hired.
- 9/4-5/96 Department of Education onsite evaluation by Christina Dunn, Neil Kaske, and Shirley Steele, and visits by other similar project participants from Louisiana, West Virginia, Iowa, Colorado, and Maryland. If report filed, PORTALS did not see it.
- 10/14/96 Howard McGinn makes LITA presentation on PORTALS/HEA II-B grant.
- 1996-1997 Project Systems Programmer in "spare time" makes continuous improvements to prototype network in preparation for deployment including: upgrades to cabling, software, network security, programming to enable centralized control and repair of physically distributed servers, change of domain name to PORTALS, etc.
- Winter
1996/97 Fiber optic cable linking PORTALS equipment installed by Project Systems Programmer.
- 1/23-24/97 Chuck McClure, Evaluation Consultant, makes an onsite visit. Decision made that local research assistant cannot be hired. Joe Ryan hired to conduct onsite evaluation. McClure requests evaluation reports from grant participants including PORTALS.
- 2/97 Project Systems Programmer experiments with web log analysis software. See Web Server Statistics for PORTALS. Available: WWW: <http://www.portals.org/stats/>
- 2/97 Grant participants, excepting PORTALS, file evaluation reports with PORTALS and Dr. McClure.
- 2/97 Gopher to Lynx conversion begun.

- 2/97 Project Systems Programmer develops program to make licensed database tape conversions from 9 track tapes.
- 3/97 PORTALS completes effort to make web page compatible with Lynx, Microsoft Explorer, and Netscape browser standards.
- 3/31/97 Howard McGinn resigns as PORTALS Executive Director.
- 4/97 Karen Starr, PORTALS Director of Network Information, adds extensive links to federal, state, and local government sources on the Internet.
- 5/16/97 Dennis Gilbert, Project Systems Programmer, resigns.
- 6/2/97 Jim Kopp begins as PORTALS interim Executive Director.
- 6/3/97 Joe Ryan arrives and conducts initial meeting with Jim Kopp.
- 6/4/97 PORTALS Council of Librarians meeting, Pacific University, Forest Grove, Oregon. Joe Ryan makes presentation regarding his onsite evaluation of the grant. Jim Kopp notes that his is a 13 month appointment, that during this period an analysis of the direction and viability of PORTALS will be undertaken.
- 6/9/97 Joe Ryan interviews via telephone Dennis Gilbert, former Project Systems Programmer. Dennis suggests that the backbone network is ready to be deployed with the following caveats: allow a week per site for installation and training at member locations, factor in post-installation technical support and maintenance of unknown amount (figure at minimum visiting each institution one day a month -- 25% of a staff person's time per year), installation and maintenance would need to be separate from other ongoing duties (such as licensed database loading, additional network applications, web master tasks, etc.).
- 6/12/97 Joe Ryan interviews Karen Starr, Director of Network Information.
- 6/25/97 Joe Ryan interviews Jim Kopp who indicates Board approval for the search for Project Systems Programmer replacement, his intent to move toward the use of vendor supported (rather than PORTALS supported) licensed databases, the creation of a technology committee composed of systems administrators from the PORTALS membership, that interviews for a HEA II-B grant principal investigator are underway, and that a user services committee met. Jim mentions that the first job of the Project Systems Programmer when hired and the newly created technology committee will be to deploy the PORTALS backbone network.
- 6/97 Tom Pfingsten named principal investigator for the grant.
- 7/97 Lois Cohen hired as Grants Assistant reporting to the Principal Investigator

Staff Development Activities

This sub-section summarizes efforts by grant participants to obtain education and training for staff to better implement the grant objectives. PORTALS staff had little time for staff development for itself. As far as the onsite evaluator could determine, PORTALS offered no staff development activities to the PORTALS membership which relate to the grant.

Project Work Products

This sub-section lists and describes the major products, services, and other outcomes as a result of the grant.

PORTALS. Web page. Available: WWW: <http://www.portals.org/>

PORTALS. Web Server Statistics for PORTALS. Available: WWW: <http://www.portals.org/stats/>

Dissemination of Project Results

This section identifies specific ways grant participants disseminated project findings to the local, state, and national communities and the profession including publications, videos, press releases, presentations, external training sessions, etc. PORTALS staff made two formal national presentations:

McGinn, Howard. (1996, October 14). Evaluating library Internet services to citizens. Pittsburgh: ALA. LITA/LAMA National Conference. Pittsburgh, PA.

Ramaley, Judith; Hudson, Kristine; Cohen, Joyce and McGinn, Howard. (1995, October 30). PORTALS. Portland, OR: Fall Coalition for Networked Information meeting.

In addition, the former Executive Director made numerous informal presentations around the country. PORTALS staff and others mentioned aspects of the project at various state meetings including the Oregon Library Association toward the middle and end of this grant cycle. The evaluators could not determine what information the PORTALS membership received about the grant.

Evaluation Efforts

This section identifies specific ways PORTALS used to evaluate the project. PORTALS did not hire the local evaluator proposed in the grant for reasons not known to the evaluators. PORTALS did not file an evaluation report with the Evaluation Consultant in February 1997 as did the other grant participants. The former Project Systems Programmer experimented with web log analysis software in February 1997, see < <http://www.portals.org/stats/> >. The PORTALS webmaster made provision for a "mailto" the webmaster option enabling some feedback from users of the website generating a few (4-5) messages per week. The evaluators are not aware of any other formal efforts at evaluation of the grant other than that engaged in by the present evaluation team.

Lessons Learned

This sub-section identifies significant lessons learned by PORTALS which may also be of interest to similar organizations in other settings.

PORTALS Is Chronically Under-staffed

A principal finding is that PORTALS failed to achieve its grant objectives due to a chronic lack of staff:

- PORTALS did not hire staff identified (and funded) in the grant proposal (including the local evaluation research assistant).
- PORTALS staff assigned to the project had other, more compelling responsibilities leaving little if any time for grant activities.
- Staff turnover, and position vacancies significantly added to staffing problems.

The existing PORTALS staff,, heroically at times attempted to fill the void but these efforts could not compensate for the inadequate number of staff. All too often, the PORTALS staff operated due to these circumstances in crisis mode with attention to any one detail episodic at best.

It is outside the scope of this study to determine why the staff shortage exists. Recent PORTALS actions begin to address some of these concerns including:

- Search for a replacement for the Project Systems Programmer is underway
- Move to vendor support of PORTALS licensed databases, and
- Outsourcing of the HEA II-B grant's administration (to the Portland State University Library Director and a newly hired grant assistant reporting to him).

Time will tell if the solution found for the PORTALS HEA II-B grant administration is adequate and workable. The evaluators remain concerned that PORTALS lacks the staff necessary to complete the installation of the backbone network while conducting normal PORTALS duties.

PORTALS Members Uninvolved in Grant Activities to Date

The success of the grant required an adequate core PORTALS staff and active participation by volunteer staff (most often formed into committees) from the PORTALS membership not otherwise participating in the grant. The present grant period saw inadequate PORTALS core staff and little participation by the PORTALS members who were not direct grant recipients. Indeed, even staff from the PORTALS membership specifically committed in the original grant proposal to achieving certain PORTALS component grant objectives did not to help achieve grant objectives. The reasons for the lack of PORTALS members participation are not known to the evaluators and outside the scope of the evaluation. However the impact of the inadequate PORTALS core staff and the lack of participation by the PORTALS members in grant activities is plain: the backbone network is not deployed, provision of government information on the PORTALS website is at first delayed and its future uncertain, and staff training, continuing education, and dissemination of grant results is negligible.

An early success of the interim Executive Director is his efforts to enlist voluntary contributions of the PORTALS membership's staff time in achieving the objectives agreed to by the PORTALS membership. The evaluators hope these efforts will enable the completion of such grant objectives as the establishment of the PORTALS backbone network.

PORTALS Backbone Network Not Deployed

The development and deployment of a backbone network among the PORTALS members was to be the centerpiece of the PORTALS portion of the grant. To date the deployment of the network is incomplete. The former Project Systems Programmer had more than a full time job ordering and testing equipment, mounting and maintaining PORTALS licensed databases, and creating and maintaining the PORTALS server and web page -- not to mention a range of other activities which included informal work for Portland State University and technical troubleshooting for virtually all of the PORTALS membership. Despite this, the former Project Systems Programmer found time to do the planning, acquisition of equipment and software, and software development for the proposed PORTALS backbone network apparently bringing this aspect of the task to the ready to deploy stage.

Federal Government Information Accessibility Only Minimally Addressed

PORTALS was to take the lead in making federal government information, with emphasis given to resources of interest to Oregon and the Northwest, accessible to PORTALS members. The other grant participants were to focus on making state and local information available. The grant proposal citing one of the present authors (Ryan, 1994), noted that "Government information is widely available on the Internet but is poorly organized, of uneven quality, and difficult for most users to access." PORTALS, however, was unable to address this grant component successfully due to a number of factors:

- Proposed was a website to include federal and other government information. By early 1997 a PORTALS website existed but without significant government information on it. The Evaluation Consultant recommended that the PORTALS Director of Network Information to step in and take responsibility for this portion of the PORTALS grant project. The Director of Network Information, assisted in part by the Onsite Evaluator prior to his onsite visit, created a basic set of links to federal, state, local, and PORTALS member government information efforts as a sub-section of the PORTALS website. The continued update and maintenance of this section of the PORTALS web page is in question due to the more pressing obligations of the PORTALS Director of Network Information.
- Proposed was a plan to provide access via PORTALS Internet web page to a range of federal government databases mounted locally including Census data; National Trade Data Bank; National Environmental, Sociological, and Economic Data Bank; and the Regional Economic Information System. This activity did not occur and notification sent in a letter from the then Executive Director Howard McGinn to Christina Dunn of the Department of Education March 25, 1997 (see Appendix P-6).
- User feedback and involvement were to be critical to the PORTALS effort to make federal government information available to the PORTALS membership. An advisory committee was to assist PORTALS in the provision of federal and other government information on the PORTALS website. Apparently PORTALS convened an advisory committee in late 1995 and/or early 1996. After some controversy (the evaluators so not know the particulars), the advisory committee disbanded. Since then, no PORTALS members or members' users participated in this component of the PORTALS portion of the grant.

The government information portion of the PORTALS web page does not solicit feedback nor does PORTALS make provision to receive or process any other feedback regarding government information from PORTALS members or users.

Despite being a federally funded grant to improve "citizen access to government and other information," the grant made little contribution to improved access to federal government information for PORTALS members and their users.

User Training and Staff Development Not Done

During the period of the grant, Internet use, specifically using the Internet to access government information, went from being uncommon to commonplace among the PORTALS membership. However PORTALS played little if any role in supporting its members in the transition to use of the Internet to access government information. Promised user support, training, staff development, helplines all did not appear. This was an extraordinary opportunity missed -- not for lack of interest or ability but due to lack of staff.

Continuous Ongoing Evaluation Not a Part of PORTALS Practice

Troubling is the lack of a plan to actively seek out user feedback to PORTALS initiatives, specifically the government information provided by itself and its members as part of the grant. There appears to be no policy or procedures in place to seek or obtain user feedback, or channel user feedback to the appropriate PORTALS member, PORTALS committee, or PORTALS staff member, specifically, in this case, as regards the effectiveness of the PORTALS portion of the grant. There appears to be no policy in place for ensuring prompt consideration of any user feedback obtained. In sum, internal planning for continuous user-based evaluation, the conduct of such evaluation, and policies and procedures for using evaluative feedback do not seem to be in place.

The interim Executive Director points out that it is PORTALS policy that PORTALS (as an organization) provides services to its members which, in turn, provide service to users. This is a reasonable policy and certainly politically wise. However, this policy puts a potential barrier layer of bureaucracy between a service provider (PORTALS) eager to discover if its service is effective and an end user eager to offer a suggestion for improvement. The networked environment of the Internet may add an additional barrier to obtaining user feedback. In a networked environment with service provided by a consortia, who the service provider is may not be at all clear to an end user (indeed, they may not even care). The most effective common solution to reducing these potential barriers is a policy which clearly articulates role, procedures, and process as it relates to continuous evaluation and solicitation of user feedback coupled with training sessions for key public service personnel. The policy and subsequent training should make clear who will solicit user feedback and how; how will feedback be processed with specific roles identified for PORTALS, PORTALS members, and users; and, who is accountable for what aspects of evaluation outcomes. At present, such policy does not exist at PORTALS. Without such a policy and training program PORTALS will not be able to determine the effectiveness of its grant activities.

Next Steps

This sub-section suggests next steps to be taken as this grant period comes to an end and to advance the project's objectives after the funding period.

The Onsite Evaluator arrived the day after the new interim Executive Director, Jim Kopp, started. He is currently reviewing the direction, approach, and pace of PORTALS' activities. The question of what next steps for PORTALS to take is under active consideration at the moment. The next

steps, highlighted below, relate specifically to the grant objectives within the emerging framework being articulated by the interim Executive Director and PORTALS membership.

Deploy the PORTALS Backbone Network

The original deployment plan proposed in the grant assumes that the equipment is physically distributed to each member's site with much of the day-to-day maintenance and the production and management of content on the computers controlled from PORTALS headquarters. The next steps in this process are to install the Sun and Pentium workstations at each members' site and train local personnel (estimated time one week per site), test and debug the resulting installation, provide ongoing technical support (estimated at minimum as one day per month per site -- 25% of a technical staff person's time). Estimates are from the former Project Systems Programmer. A potential problem with the present plan is that while the equipment is physically housed at member institutions they cannot directly add or control the content on the computers. There are at least three other deployment options under consideration given the advent of the Internet, a factor not considered in the original grant proposal.

A second option, is to not physically distribute the equipment, simply link the equipment locally at PORTALS headquarters and then to the NorthWest Net T1 connection and all PORTALS members would have the same access via the Internet as planned now. This would eliminate the need to travel to the fourteen sites to install equipment, train staff at each location, and maintain equipment at each of the different sites.

A third option is to simply distribute the equipment to each member with each member controlling what is put on the machines and their use and maintenance. The advantage is that the deployment is fast, members are responsible for equipment maintenance, and members can use the equipment to mount their own information. The computers would be connected to the Internet so that information and communication could be shared among other PORTALS members and the wider Internet community. The former Project Systems Programmer has concerns about some members ability to install and maintain the equipment. The issue of who controls what is placed on the computers and how this approach would meet the terms of the grant must be addressed.

A fourth option assumes deployment as originally planned with policies and procedures in place which identifies the network's purpose and use, how content can be contributed from PORTALS members (or even individuals within PORTALS institutions), who would maintain the equipment under what conditions, and other governance and standards issues. This mechanism would be developed by a PORTALS "content committee" with advice from technology experts within the membership.

There may be other options as well. The hiring of a replacement for the former Project Systems Programmer is underway. The interim Executive Director is in the process of constituting a technology committee composed of systems administrators from the member institutions to investigate deployment options and aid the eventual deployment.

Populate the PORTALS Server and Network with PORTALS Members Content

At present, PORTALS struggles to maintain the availability of the licensed databases and a very modest web page. A plan to move to vendor support of the licensed databases is set to begin. Should the backbone network be deployed, or even with the existing PORTALS website, what content should be mounted, how, by whom, for how long, etc?

Make Provision for PORTALS Members User Training, Contribute to Staff Development

The new draft strategic plan (Available: WWW: <http://www.portals.org/plantoplan.html>) by the interim Executive Director targets continuing education for the PORTALS membership as an area for attention. Will the focus of training be broadened to areas more germane to the grant's activities. How will continuing education needs be identified, by who, how managed and funded? Can meaningful staff training be delivered via the backbone network and the Internet?

Recommendations

The evaluators offer the following recommendations based on the onsite visit and subsequent discussions.

Deploy Backbone Network

The backbone network could and should be at the heart of a revitalized PORTALS, offering the information products and services that are the tangible benefits of PORTALS membership, and enabling efficient communication for administration, planning, and continuing education. The interim Executive Director assured the Onsite Evaluator of his commitment to deploy the PORTALS backbone network, but how and when remain to be determined. The interim Executive Director and Board took initial positive steps by seeking to hire a new Project Systems Programmer and constituting a technology committee.

The evaluators recommend that the interim Executive Director publicly set a date, with accompanying plan (addressing some of the issues raised next), when the PORTALS backbone network will be in place. Further, the evaluators recommend that PORTALS adopt a network architecture and deployment plan which fosters the production and use of the type of scholarly content and communication the PORTALS membership values most.

Address PORTALS Network Content and Communication Policies and Procedures

The evaluators caution that the technological deployment of the PORTALS network, while a significant challenge, may not be the most crucial issue. What content is available on the network? Who can contribute content to the network, how, and under what conditions? How and who determines these and other governance issues? Do PORTALS members, including the librarians and faculty members (and even students) who produce content, believe that they are empowered collaborators in the PORTALS network cooperative enterprise?

Equally important will be fostering communication on the PORTALS network about PORTALS specific issues and about issues of interest to the PORTALS scholarly community. How will this be accomplished? What network vehicles will be in place to encourage communication among PORTALS members about PORTALS or stimulate the scholarly pursuits of PORTALS member scholars? Who will control these communication vehicles? Will PORTALS offer listservs or chat rooms, on what topics, and managed by whom? Will student scholars be offered PORTALS space to mount web pages, under what conditions, and who will manage the program? What will be the first continuing education course offered on the PORTALS network? How will it be offered? The evaluators suggest that it is past time for PORTALS to consider these and other related issues regarding the use of the PORTALS network for communication by PORTALS members.

The evaluators caution, that the database licensing issues, no matter how visible, expensive, and rancorous, may not represent the future for the PORTALS membership. The content that may matter most to PORTALS members and the larger education community may be the content that is locally produced and given a home on the PORTALS network. The communication that may matter most may be the communication on local issues raised and resolved using the PORTALS network. But without policies and procedures for how content, including licensed databases, is to be presented and communication to occur, the network will languish.

The evaluators recommend a committee to develop policies and procedures which ensure that all PORTALS members can contribute to the educational asset the backbone network represents. It is possible to construe these matters to be in the domain of PORTALS internal management and thus outside the scope of this report. The evaluators caution however, that a principal contributing cause to PORTAL's failure to meet its grant objectives to date is PORTALS lack of a policy mechanism to address what government information content will be made accessible on the backbone network, who will create, select, enter, maintain, deselect such content and how, etc. Without PORTALS network content and communication policies and procedures, grant objectives will not be met or met well.

Make Federal and other Government Information Accessible to PORTALS Members

PORTALS was to make federal government information accessible on its network as part of the grant. The evaluators have two concerns. First, we believe that government information should be a key component of the content offered by the PORTALS network. Second, we do not believe the day-to-day ongoing update and expansion of the government information section should be the responsibility of the Director of Network Information. The Director of Network Information stepped in to solve an immediate problem and did a competent job, but she may now have other more pressing responsibilities. The ongoing responsibility for the provision of federal and other government information belongs within the PORTALS membership at the subject expert level. At this late date, PORTALS might best contribute by serving as catalyst and coordinator of the efforts of its members' experts.

The evaluators recommend a committee be formed to coordinate the development and maintenance of the government resource portion of the PORTALS network. Logical committee members include the government documents and law librarians from member institutions. However we suggest PORTALS consider inviting representatives from the grant participants (Multnomah County Library, State Library, and Oregon Historical Society) who produce government information as well as other local government webmasters (such as the City of Portland) to participate. The dual charge to the committee should be on the one hand to determine the government information needs of PORTALS members to be best met via the network and PORTALS, and on the other, to determine what government information can PORTALS members uniquely contribute to the PORTALS network. For PORTALS members the situation is much as Ryan portrayed it in 1994, "Government information is widely available on the Internet but is poorly organized, of uneven quality, and difficult for most users to access." With a coordinated effort led by PORTALS, this situation does not have to be the same today for its members.

Address PORTALS Members' Staff and User Training Needs

If the PORTALS network is to make available a rich array of digital content who will alert staff and users to its availability, who will train staff and users to taken advantage of these sources? Should fourteen essentially identical guides to using each licensed database have to be produced? Is it possible to use the PORTALS network to deliver continuing education to staff? Is it possible to use the

PORTALS network to deliver courses produced collaboratively by PORTALS faculty members to students and others at PORTALS institutions?

The evaluators note the new PORTALS strategic plan's emphasis on staff development and continuing education. The evaluators suggest a modest broadening of the scope of the proposed staff development effort to include other needs of the PORTALS membership including those related to the grant. Specifically the evaluators recommend a committee to develop a plan for (1) a PORTALS guide to each licensed government database (e.g., Medline and ERIC) suitable for all locations to use -- the guides might be mounted on the PORTALS network to solve the publication cost question (2) Create a staff development program of interest to the PORTALS membership delivered in whole or in part on the PORTALS network (3) Develop a course to be delivered in whole or in part over the network -- an introduction to government resources on the Internet for researchers might be a place to start, and with these accomplished: (4) Create a structure, policy, and mechanism to enable other staff development needs to be identified and met by PORTALS. These tasks ought to contribute to establishing a knowledge base and capacity to enable PORTALS to decide what is feasible and desirable in this area.

Embed Evaluation Mechanism

A PORTALS headquarters staff out of touch with the PORTALS membership, not only the Board and Council of Librarians, but the middle managers, front line staff, and ultimately the users of each institutional member, can be fatal to PORTALS. Without a systematic plan to interact with and collect data from these key stakeholder groups PORTALS headquarters will not know whether they are meeting grant objectives or members needs. Furthermore, the PORTALS membership will believe that PORTALS headquarters does not care what the members think. The statement at the June 4 Council of Librarians meeting by a Council member that the Onsite Evaluator's presentation was the first time the Council had heard a clear explanation of what the grant was about was a clear indicator of the need. The grant, with its explicit requirements for continuous user-based evaluation, represented an opportunity to tackle the evaluation problem and get it right. The evaluation problem remains.

The evaluators recommend that PORTALS evaluate locally and communicate findings widely. Specifically a local evaluator should be hired to systematically "take the pulse" of the PORTALS membership. How well are various products, services, and other initiatives being received? How could these products, services, and initiatives be improved? What are new directions PORTALS might take, generated from within the PORTALS membership and outside it? Specific attention should be given to the end user's evaluation of PORTALS information resources and services. The evaluators recommend a committee be created to work in conjunction with the local evaluator. The charge to the committee would be to develop an evaluation plan with specified targets and commitments, involving PORTALS members where possible, and assigning PORTALS staff certain responsibilities. The local evaluator and evaluation committee should give specific attention to training other PORTALS committees in appropriate evaluation practices and in monitoring evaluation efforts of those committees. The evaluation committee should develop a mechanism and plan for disseminating evaluation results (using the network where appropriate) to the PORTALS membership and, where appropriate, interested outside professionals. The evaluators recommend that the local evaluator's work and the evaluation committee's work be public and that accountability mechanisms be in place.

The evaluators suggest that interactive forms specifically soliciting feedback be added to the PORTALS website. A good example is at MCL's RITNet <<http://www.region.portland.or.us/>>. Many users may not recognize the availability of the existing "mailto" feature. Others will not know that their comments are welcome. Still others will not respond unless specifically invited.

Hire Necessary PORTALS Staff, Involve the PORTALS Membership

A consortium like PORTALS depends upon a critical mass of dedicated core staff and the essential voluntary staff participation of consortium members: neither is enough to get the job done, both are necessary. The PORTALS office was and is under-staffed. The evaluators note with approval the interim Executive Director and Board's action to hire a new Project Systems Programmer. The outsourcing of PORTALS licensed database activity and the administration of the HEA II-B grant may also free PORTALS core staff time. The evaluators question whether these personnel acquisitions and changes are enough. Also needed are:

- A dedicated **administrative assistant** hired by and reporting to the Executive Director. This person would handle the "parking, pastries, and paperwork" which can fatally mire a multi-jurisdictional consortium. Due to the confidential nature of the job, handling sensitive information from all of the consortium members, careful attention to how the position is funded and the reporting relationship is needed. This position should report directly to the Executive Director not through a member institution to him.
- A PORTALS-based **local evaluator**, originally designated in the original grant proposal, to systematically tackle the evaluation issues discussed above.
- A **program administrator**, or more than one, to manage the day-to-day pragmatics of the number of initiatives already underway (e.g., database licensing, cooperative collection development, reciprocal borrowing) and the future initiatives to follow. There is need for someone to "ride herd" on the day-to-day process of making these initiatives happen freeing the Executive Director to negotiate and make the tough decisions necessary.
- A **public relations person** to get the PORTALS message out to members, stakeholders, to the region, to the profession, and to coordinate the development of future grant proposals is essential. In a consortium, communication is critical, should it be left to chance?
- A **web master** to coordinate the management and production of content and communication on the PORTALS network as discussed above. This person would administer policy and maintain standards, pro-actively identify and create content, initiate and participate in web related projects undertaken by PORTALS members to be mounted on the PORTALS site, and serve as a resource to the PORTALS membership.

And there may be other positions needed including a user services/staff development officer, and a full time grants administrator. But an adequate complement of PORTALS office staff will not be enough without a committed PORTALS membership.

There is a need to mobilize the staff of the PORTALS membership to contribute their time to a range of worthy ends associated with the present grant, future phases of the HEA II-B grant, and future grants. Sometimes a consortium is not lead so much as energy is unleashed and appropriately directed. The evaluators note with approval the interim Executive Director's efforts to re-energize PORTALS committees. But the interim Executive Director and his staff cannot do the job by themselves, particularly as under-staffed as they are. Without the active involvement of the PORTALS membership, achieving present and future grant objectives are in jeopardy.

III. Oregon State Library (OSL)

This section of the report examines the Oregon State Library programmatic participation in the HEA II-B grant including a component designed to provide citizen access to state government information and the Project JumpStart (Oregon Internet connectivity grant program) component. These components receive separate treatment here. Each project's sub-section includes: program objectives using language from the original grant proposal and outcomes to date in brief, the evaluator's activities in order to compile each sub-section of the report, a chronological summary of key events and accomplishments, staff development activities, project work products, efforts to disseminate project results, evaluation efforts, lessons learned, next steps, and the evaluators' recommendations.

Provide Citizen Access to State Government Information

Project Objective and Outcomes in Brief

This sub-section identifies initial project objectives (using text from the grant proposal) for the State Library portion of the HEA II-B grant and summarizes progress to date.

Oregon State Library will deliver important state government information and transaction services to Oregon citizens via the Internet. Specifically, OSL will:

- **Provide Citizen Access to State Government Information:** including an index to state government web sites (using Harvest search engine), and access to Oregon Revised Statutes, Oregon Revised Rules, Appellate Court Decisions, and the Oregon Index. OSL will create with State Printer an online state document ordering clearinghouse. This system will establish a centralized online state document purchasing and ordering system to provide state publications from participating agencies. The system will include online browsing of a publication inventory and user-friendly and secure ordering and payment mechanisms.
- **Conduct ongoing user-based evaluation/feedback.**

This portion of the State Library's grant activities met with great success.

The level of knowledge and interest in the provision of Oregon state government by electronic means went from low interest to a high priority among Oregon state agencies during the grant period. The grant proposal noted the State Library's intent to mount Oregon Revised Statutes, Oregon Revised Rules, and Appellate Court Decisions on the State Library's web site. However, agencies other than OSL produce each of these data sources. There was initial interest in allowing the State Library to mount these sources on its own site. However during the grant period, the individual state agencies developed their own ability to mount these sources on their own websites. These other agencies still approach the State Library for advice on a consultative basis. The State Library includes links on its website to the above mentioned network resources as appropriate. As an alternative, the State Library, simply mounted other state government information sources in place of those originally proposed.

Sources that the State Library did mount using grant funds include: the Oregon State Governor's Page, Oregon State Library home page, Oregon Index (current and backfiles 1987 to present), the Oregon WorkSmart page (specifically designed for Oregon state employees - a state intranet if you will), and most recently the Global Index to Oregon State Government Websites and the Oregon Regional List of

Serials (ORULS). The Oregon Index, an index to many of the state's principal newspapers, is produced by the State Library in cooperation with other libraries within the state.

The original grant also proposed using the Harvest search engine to implement a Global Search Engine to index state government web sites. In November 1996, after using substantial consultant time to try to create such a global search index, Ernest Perez, the Automated Systems Administrator, determined that this freeware package would not do the job. The major reasons for abandoning this package was that it was unsupported and required a skilled Unix technical support person which the State Library did not have. This delayed the development of the index to state government web sites until this year when OSL found "Phantom," a suitable Macintosh-based, search engine application. The index is in operation at present. Recently, the state Internet Advisory Committee, the group of the state agency webmasters, agreed to cooperate with the project. The state Library will design a simple, controlled vocabulary, indexing approach, using the HTML Meta field, to assist with the full-text retrieval of agency sources.

The original grant proposed that the State Library, in cooperation with the State Printer would make available an online state document ordering clearinghouse. At present, this project is nearing completion. The principal delay is finding a secure payment mechanism. In conversations with the State Printer he indicated the target date for public access to this ordering clearinghouse to be September 1997.

In sum, the State Library met or exceeded its targets in its efforts to make State government information available to its citizens. The State Library continues to be viewed as a key player and resource by other state agencies, even as they become more interested and proficient in using the Internet to make government information available to citizens themselves. The State Library, seeking to contribute to the state's capacity to provide information via the Internet, hosts most of the internal state government listservs, and several listservs for agency/public and agency/media communications.

Summary of Evaluator's Onsite Activities

The onsite evaluator reviewed all Oregon State Library (OSL) and related web sites (see Appendix P-6). He reviewed all available documentation including the original grant proposal, the Evaluation Consultant's reports, and the evaluation report filed by the State Library (Perez, 1997). The Onsite Evaluator then prepared a preliminary draft report indicating what was tentatively known and questions to be pursued onsite. On June 6, 1997 the Onsite Evaluator met at the State Library in Salem, Oregon and interviewed (using pre-structured protocols) the following people: Ernest Perez, Automated Systems Administrator; Jim Scheppeke, State Librarian; Scott Smith, Information Systems Consultant, Strategic Planning & Review, Department of Administrative Services and Mike Freese, State Printer; and Roy Turnbugh, State Archivist. The Onsite Evaluator made follow up e-mail requests as needed. The OSL key liaisons to the evaluation study checked the Onsite Evaluators findings, in the form of a draft report.

Chronological Summary of Key Events and Accomplishments

Summarized, in chronological fashion below, are key activities, milestones, outcomes, and accomplishments including principal work products to date given the project's objectives.

- 1994/1995 A state sponsored "Leadership Oregon" Project bringing state government managers together on a regular basis served as the catalyst for the grant proposal and furthered contacts and resources for successfully meeting the grants objectives. The initial Oregon state government venture onto the Internet was the "Oregon Online Gopher," hosted on a Sun LX workstation at the State Library. Initial project leaders, drawn together by the Leadership Oregon sessions, included: Ernest Perez, State Library Automated Systems Administrator; Mike Freese, State Printer; and Scott Smith, Information Systems Coordinator, Strategic Planning & Review, DAS (Department of Administrative Services).
- 1/95 Jim Scheppke, State Librarian, articulates a vision in the Oregon Information Highway Project (OIHP) Report. The grant proposal sought to help achieve the goals set out in this vision statement. Available: WWW: <http://www.osl.state.or.us/orpac/OIHP.html>
- 2/6/95 PORTALS applies for the U.S. Department of Education HEA II-B grant
- 6/95 State Library purchases Macintosh with internal funds for Oregon State Library web page.
- 10/1/95 The HEA II-B grant begins.
- 1/96 Purchase and installation of Sun Sparc5 workstation using grant funds.
- Spring 1996 The State Library applies for copyright permission from the Legislative Joint Committee on the Legislative Counsel, copyright owner of the Oregon Revised Statutes (ORS). The Joint Committee gives permission to offer unpaid public access to this important resource, to both the State Library and to the Office of the Legislative Counsel. This latter organization, the actual publisher of the ORS, decides to itself host a version of this database on the Internet. Available: WWW: (search engine) <http://landru.leg.state.or.us/search1.html> Gopher: [gopher://gopher.leg.state.or.us:70/11/ors95.dir](http://gopher.leg.state.or.us:70/11/ors95.dir) The State Library homepage provides a link to this source, but decided not to duplicate an existing online resource.
- 3/96 Oregon State Library web page debut. Available: WWW: <http://www.osl.state.or.us/oslhome.html> Public access items available as of June 1997 include: State Library online catalog, Library Special Services (including ILL, renewals, non-OPAC requests), Census Information, Oregon Document Depository Program, Genealogy Information, Access to other Oregon state government databases and information files, Grants Information, Oregon Topical Files, "Letter to Libraries Online" library newsletter (see references), Talking Book and Braille Services Information, Library Development Office information and data files, the libs-or mailing list (statewide library mailing list) and ORULS database (Oregon Regional Union List of Serials).
- 4/96 Oregon State Governor's web page mounted on Sun Sparc5 funded by PORTALS HEA II-B grant. Available: WWW: <http://www.governor.state.or.us/governor.html>
- 11/2/96 The State Library notified PORTALS that Harvest is unsatisfactory for providing an index to state government web sites because of software complexity and lack of support and lack of internal expert Unix staff support. This delayed implementation of a global index to government websites until mid-1997.

- 12/96 State Library turns off its Oregon Online gopher site in favor of the DAS-operated Oregon Online web homepage.
- 1/97 State Department of Administrative Services mounts Oregon Online. Available: WWW: <http://www.state.or.us/> This central State website, with links to all state Web and gopher servers, reduces pressure to prematurely mount an index to state government information. The search for an appropriate search engine continues.
- 1/97 Current version (1995 to present) of the Oregon Index made available on the web by the State Library using a Window_NT/O'Reilly server with Inmagic search engine purchased from grant funds. Available: WWW: <http://www.osl.state.or.us/orpac/orindhome.html> The Oregon Index is an online index to several Oregon newspapers (including: Coos Bay World 1996 to present, Corvallis Gazette Times 1988 to present, Klamath Falls Herald & News 1996 to present, LaGrande Observer 1989 to present, Lake Oswego Express (weekly) 1996 to present, Salem Statesman Journal 1987 to present, Tigard Times 1996 to present) and to magazine articles about Oregon cooperatively indexed by participating libraries and coordinated and made available on a website by the State Library. The Index started in 1987 using Personal Librarian software. The index later migrated to BRS search software, and finally to the present Inmagic WebPublisher package. The total index span now contains approximately 400,000 records.
- 2/97 Backfiles (1987 - 1994) of the *Oregon Index* made accessible on the Internet by the State Library. Available: WWW: <http://db.osl.state.or.us/orind2.htm>
- 2/97 The Oregon Judicial Department begins planning to mount the State Appellate Court decisions itself, no target date set. The State Library planned to mount this source on its website but decides not to duplicate an existing network resource.
- 4/18/97 The Secretary of State, Archives Department mounts the Oregon Administrative Rules. Available: WWW: <http://arcweb.sos.state.or.us/oarsos.html> The State Library originally intended to mount this source on its site, but again decided to let the original data publisher take the lead in providing public access. The State Library homepage does provides a link to this government information resource.
- 4/97 Prototype "Global Index to Oregon State Government Web Sites" using Macintosh-based "Phantom" software (purchased by grant) installed. Available: WWW: <http://index.osl.state.or.us:8080>
- 6/97 The "Global Index to Oregon State Government Web Sites" moves to public access status. Publicity includes an announcement on the libs-or listserv reaching virtually all the libraries of the state, an e-mail announcement to all major Oregon Internet Service Providers, and announcements on Ed-Net/Compass, the state telecommunications and video-conferencing network.
- 7/97 State Library plans to utilize the under used Sun SPARC5 workstation purchased as part of the grant as a host Web site for smaller state agencies, commissions, and boards, who do not have the infrastructure or technical expertise needed to host their own Web sites. Prototype pages for this activity will be the Advocacy Commissions (handling

diversity/advocacy activities for minority and women's groups) and the Pioneer Cemeteries Commission. OSL plans to provide basic technical support for the Web site, and basic-level HTML technical help as needed.

- 9/97 State document ordering clearinghouse targeted to be in operation. The State Printer in cooperation with other agencies including the State Library will establish a centralized online state document purchasing and ordering systems to provide state publications from participating agencies. System will include online browsing of publication inventory and user-friendly and secure ordering and payment mechanisms. As of 6/97 equipment and software purchased.

Staff Development Activities

This section summarizes efforts by grant participants to obtain education and training for staff to better implement the grant objectives.

A state sponsored Leadership Oregon Project in 1994/1995 bringing state government managers together on a regular basis served as the catalyst for the grant proposal and provided the contacts and resources for successfully meeting the grant's objectives. OSL staff use local state government listservs (for which the State Library provides space) along with some national listservs (web4libs, pacs-l). The State Library did not find courses and conferences to be of use with the exception of C-PUG, a state electronic publishers user quarterly meeting.

Project Work Products

This sub-section lists and describes the major products, services, and other outcomes as a result of the grant:

Oregon State Library home page. Available: WWW: <http://www.osl.state.or.us/oslhome.html>

Global Search of Oregon State Agency Web Sites. Available: WWW: <http://index.osl.state.or.us:8080>

Oregon State Library's *Global Search of Oregon State Agency Web Sites* indexes the following agencies as of July 3, 1997:

Adult and Family Services Division (5/2/97 - 124), Board of Barbers and hairdressers (6/16/97 - 65), Criminal Justice Services Division (6/25/97 - 10), Department of Human Resources (5/1/97 - 540), Department of Land Conservation and Development (5/1/97 - 240), Employment Department (6/11/97 - 537), Information Resources Management Division (7/2/97 - 250), Insurance Pool Governing Board (6/20/97 - 14), Law Enforcement Data Systems (5/1/97 - 7), Legislative Administration (6/18/97 - 498), Office of Alcohol and Drug Abuse Programs (5/2/97 - 1), Office of Economic Analysis (6/26/97 - 79), Office of Educational Policy and Planning (6/20/97 - 85), Office of Emergency Management (6/27/97 - 82), Office of Energy (6/27/97 - 201), Office of the Oregon Health Plan Administrator (7/1/97 - 146), Oregon Board of Accountancy (6/15/97 - 58), Oregon Board of Chiropractic Examiner's (5/2/97 - 16), Oregon Board of Medical Examiners (6/20/97 - 10), Oregon Commission for the Blind (5/2/97 - 99), Oregon Commission on Children and Families (6/18/97 - 9), Oregon Department of Administrative Services (6/21/97 - 2125), Oregon Department of Agriculture (4/23/97 - 726), Oregon Department of Consumer & Business Services (6/9/97 - 2765), Oregon Department of Corrections (5/1/97 - 163), Oregon Department of Environmental Quality (4/30/97 - 508), Oregon Department of Fish and Wildlife (6/11/97 - 526), Oregon Department of Forestry (6/11/97 - 2499), Oregon Department of Geology and Mineral Industries' (DOGAMI) (6/12/97 - 127), Oregon Department of Justice (5/1/97 - 50), Oregon Department of Revenue (6/13/97 - 63), Oregon Department of Transportation (6/14/97 - 1022), Oregon Department of Veteran's Affairs (5/2/97 - 9), Oregon Dispute Resolution Commission (6/19/97 - 42), Oregon Economic Development Department (6/10/97 - 990), Oregon ED-NET (6/25/97 - 366), Oregon Governor John Kitzhaber (6/3/97 - 194), Oregon Hazelnut Commission (6/19/97 - 37), Oregon Health Division (5/1/97 - 243), Oregon Health Division Licensing Programs (5/2/97 - 65), Oregon

Housing and Community Services (6/12/97 - 23), Oregon Judicial Department Publications (7/1/97 - 27), Oregon Lottery (6/13/97 - 319), Oregon Oil Heat Commission (6/20/97 - 89), Oregon Online (5/2/97 - 2764), Oregon Public Utility Commission (6/20/97 - 432), Oregon Racing Commission (6/22/97 - 70), Oregon State Fair & Exposition Center (6/11/97 - 12), Oregon State Library (4/22/97 - 1747), Oregon State Marine Board (5/1/97 - 100), Oregon State Scholarship Commission (6/23/97 - 147), Oregon State Treasury (6/14/97 - 33), Oregon Youth Authority (6/15/97 - 67), Public Employee Retirement System (6/13/97 - 87), Senior and Disabled Services Division (5/2/97 - 154), Services for Children and Families (5/2/97 - 82), Technology Learning Center (5/1/97 - 63), Telecommunications (5/1/97 - 12), Water Resources Department (6/14/97 - 203), Willamette Valley Livability Forum (6/24/97 - 445)

Oregon Index. (1995 to present). Available: WWW: <http://www.osl.state.or.us/orpac/orindhome.html>

Oregon Index Backfile. (1987 - 1994). Available: WWW: <http://db.osl.state.or.us/orind2.htm>

Oregon Regional List of Serials (ORULS). Available: WWW: <http://www.osl.state.or.us/oslhome/orulshome.html>

Oregon State Governor's web page. Available: WWW: <http://www.governor.state.or.us/governor.html>

WorkSmart. Available: WWW: <http://www.state.or.us/worksmrt.htm>

Dissemination of Project Results

This section identifies specific ways grant participants disseminated project findings to the local, state, and national communities and the profession including publications, videos, press releases, presentations, external training sessions, etc.

There was active dissemination of the project efforts within Oregon State government primarily through a state government web masters group. However there is little dissemination of the project's efforts outside the state, except through e-mail and listservs (i.e. libs-or). Additional dissemination took place at meetings at the Oregon Library Association and Oregon Educational Media Association annual conferences (mostly about the Oregon Information Highway project and the Oregon Index). Ernest Perez is active in teaching HTML and web design in Oregon including classes at Marylhurst College, Oregon Health Sciences University, and Western Oregon State College, some of his thoughts are summarized on the HyperLibrarian Thoughts web site (Available: WWW: <http://www.open.org/pereze/index.htm>).

Evaluation Efforts

This section identifies specific ways the State Library used to evaluate the project. Ernest Perez (1997, February) submitted a grant evaluation report requested by the Evaluation Consultant to PORTALS. In addition, he tried various log analysis software but is, at present, dissatisfied with their ease of use and what they credibly reveal about web site users. The State Library used no additional evaluative mechanisms beyond existing State Library practice.

Lessons Learned

This sub-section identifies significant lessons learned by the State Library which may also be of interest to similar organizations in other settings. The following lessons learned are from a group interview with Ernest Perez, State Library Automated Systems Administrator; Mike Freese, State

Printer; and Scott Smith, Information Systems Consultant, Strategic Planning & Review, Department of Administrative Services:

- The development of a web page is one thing, the maintenance of the site is something else, person hours for site maintenance is high.
- "It is like we are trying to do three jobs at once: keeping up existing services, keeping up with technological change, and initiating new programs and services."
- Partnering with other state agencies and outside government and leveraging resources and skills is the norm these days.
- Hire the highest quality people you can find, look for motivation, and look in unexpected places to find them. Then support these people with ongoing training.
- Find resources where you can. The State Library makes great use of equipment cast off from other agencies.

All of these officials are active in the development of Internet based state government information services.

Next Steps

This sub-section suggests next steps to be taken as this grant period comes to an end and to advance the project's objectives after the funding period.

The State Library plans to add to the state library web site including: a list of available volunteer opportunities in state government agencies (summer), a yellow pages listing of state government services to be housed at the state library (late summer), and a web version of the *Oregon Blue Book* (fall). The State Printer plans to announce the State document ordering clearinghouse in September. Ernest Perez would like to test the useability of the existing State Library web sites using brief focus groups of 3-4 people modeled after a techniques used by Jakob Nielsen (see References below).

The State Library plans to utilize the under used Sun SPARC5 workstation purchased as part of the grant as a host Web site for smaller state agencies, commissions, and boards, who do not have the infrastructure or technical expertise needed to host their own Web sites. Initial plans are to provide basic technical support for the Web site, and basic-level HTML technical help.

Recommendations

The evaluators offer the following recommendations based on the onsite visit and subsequent discussions.

The State Library is active in making state government information accessible to citizens via the Internet and informally assisting other state agencies to do the same. The State Library did not make available the sources mentioned in the original grant proposal. This is because the originating agencies, in a much changed environment, choose to make their own sources available on their own sites. Instead, the State Library provided access, technical support, encouragement, and maintenance to other state government information including: Oregon State Governor's Page, Oregon State Library page,

Oregon Index (current and backfiles 1987 to present), Oregon Regional List of Serials, the Oregon WorkSmart page (specifically designed for Oregon state employees - a state intranet), and most recently Oregon Regional List of Serials (ORULS).

At present, the Sun Sparc 5 workstation purchased by the grant is under utilized, only the governor's web page is mounted on it. This situation is not unreasonable. Shifts in technology and the technical knowledge of the staff made it more efficient to mount the web sites on Windows and MAC based microcomputers rather than the Sun workstation. The State Library plans to utilize the workstation to provide web pages to smaller units of state government which the evaluators find reasonable. The evaluators expect that the State Library will keep the PORTALS interim Executive Director apprised of its plans and success and file a written report with him at the end of September when the grant period expires.

Project JumpStart: The Oregon Internet Connectivity Grant Program

Project Objective and Outcomes in Brief

This sub-section identifies initial project objectives (using text from the grant proposal) for the State Library JumpStart portion of the HEA II-B grant and summarizes progress to date.

Oregon State Library will deliver important government state government information and transaction services to Oregon citizens via the Internet. Specifically, OSL will:

- **Connect rural libraries to the Internet via Project JumpStart to enhance access to government:** The "Oregon Internet Connectivity Grant Program": Rural libraries will receive equipment, installation, user-friendly interface, helplines, and training to connect to the Internet.
- **Conduct ongoing user-based evaluation/feedback.**

This portion of the State Library's grant activities also met with great success.

The Oregon State Library in partnership with PORTALS, the U.S. Department of Education, the Oregon Information Highway Project, and the Oregon Independent Telephone Association initiated Project JumpStart: The "Oregon Internet Connectivity Grant Program" to connect rural public libraries to the Internet. Rural libraries applied to a competitive grant program advertised in the State Library's LTLO - Letter to Libraries Online (see References below), and via direct mailing to all public and many school libraries. Upon selection a JumpStart library received the following support:

- Two members from the library (one could be from the library's community) received two days of training at an Internet Bootcamp. The training was sub-contracted to Oregon State University (OSU), and held in Corvallis Oregon.
- Hardware and pre-installed software (chosen by the State Library and OSU). Hardware included a 486/100 Mhz computer (upgraded to 133 MHz in Jumpstart II) with 8 MB RAM, 630 MB hard drive, cd-rom drive (in JumpStart II), sound blaster card with earphones, 15" color monitor (upgraded to 17" monitor in JumpStart II), Brother 630 b/w laser jet printer and a 28.8k U.S. Robotics modem. Software included: DOS 6.2, Windows 3.1, Trumpet Winsock, Netscape 2.0, NCSA Telnet, Adobe Acrobat, and WinPac Z39.50 catalog browser. The JumpStart I package was approximately \$1,994 (from Proteon in California), JumpStart II package was approximately \$2,500. The first group received a Z39.50 client subsequently dropped for JumpStart II. JumpStart II libraries received a security package.
- Up to a year of free, dialup connection via an Internet service provider (ISP). OSL selected the ISP and negotiated rates for each library. OSL gave funds to each JumpStart I library and then the library paid the ISP. While awkward, the funding mechanism gave the library a real sense of the costs, influence with the ISP, and a backup contact for technical support as well as training. the State Library paid ISPs directly during JumpStart II due to budget restrictions.

- Several months of ongoing technical support via in-person visit, telephone, and e-mail, access to the Oregon Public Libraries web page, and a listserv limited to JumpStart participating libraries. OSL sub-contracted with OSU initially (March - December 1996), with subsequent rescued support provided by the State Library.
- The Jumpstart program required that each library have two people involved, one project manager and one computer literate person who could be from the community. The Internet service must be available to the public. Libraries must locally publicize the availability of the service. Libraries must develop a training plan to train the public. Libraries must file monthly grant activity reports (see Appendix J-1 for an example) and a project report at the end of 12 months. Libraries must file a JumpStart Internet Success Story form (see Appendix J-2). Libraries must put in wiring and phone line for the project. The State Library suggested (but did not require) that each library develop a local library board approved acceptable use policy. The "JumpStart Project Manager Certification" form (see Appendix J-3) summarizes many of these requirements.

To date 46 rural public and school libraries have Internet connections. In addition, eight additional libraries that did not require training or support received infrastructure grants for equipment. In total, 95% of Oregon's public libraries now have Internet connections.

Summary of Evaluator's Onsite Activities

The Onsite Evaluator engaged in the following activities as part of the evaluation:

- Reviewed Oregon Public Libraries web site prior to onsite visit. For evaluation summary see Appendix P-1.
- Interviewed (using pre-structured protocols) Rushton Brandis, Network Development Consultant with the State Library on June 6, 1997.
- Visited two JumpStart libraries. On June 13, 1997 visited Seaside Public Library, Seaside Oregon (population served: 5,655) and interviewed (using pre-structured protocols) Reita Fackerell, Library Director and Paula Clark local JumpStart Project Manager. On June 16, 1997 visited Driftwood Public Library, Lincoln City Oregon (population served: 10, 937) and interviewed (using pre-structured protocols) Susan Jenkins, Assistant Library Director and local Project Manager and Yueh-lin Chen, Cataloger and Systems Administrator. Both libraries were part of the first JumpStart cohort funded by PORTALS using the grant.
- Interviewed (using pre-structured protocols) on June 20, 1997, members of the Government Information Sharing Project at Valley Library, Oregon State University including: Charlene Grasse, Project Manager; Stephen Mosley Research Assistant, Information Services (the technical support Consultant); Judy Cross, Government Documents Librarian; Cheryl Middleton, Life Sciences Librarian and Kerry Otto. This group assisted in the selection and preparation of the hardware and software given to JumpStart libraries, provided training at two weekend bootcamps, and ongoing technical support.
- Examined a variety of documentation onsite and a pre-publication version of Middleton & Cross's (forthcoming) article recounting OSU's experience with Project JumpStart (a manuscript version is included as Appendix J-4).

The consultant used a pre-structured interview protocol, taped interviews where possible with interviewee agreement and privacy assured, kept additional interviewer notes, and conducted follow-up e-mail cross-checks as necessary. The JumpStart projects' key liaison to the evaluation study checked the Onsite Evaluator's findings, in the form of a draft report.

Chronological Summary of Key Events and Accomplishments

Summarized, in chronological fashion below, are key activities, milestones, outcomes, and accomplishments including principal work products to date given the project's objectives.

State Library's Experience

- 1993 Reference Link supported by the State Library begins. Consists of five regional reference and referral centers supplying backup reference services for public libraries. This outreach service was a resource for JumpStart libraries moving to the Internet.
- 1994 JumpStart Advisory group started and other internal state efforts an infrastructure planning begun. Contract with OSU for training signed during this period.
- Fall 1995 First JumpStart grant application process announced via State Library LTLO - Letter to Libraries Online newsletter (see references below) and direct mail to all public libraries and many school libraries. For sample application form see Appendix J-1.
- 1995 Prior to the first bootcamp Diane Hall, the State Library Reference Link librarian at OSU had offered regional workshops on OCLC's FirstSearch, Netscape, and Internet resources -- the Internet was not completely new to most librarians.
- 12/95 Ruston Brandis, State Library Network Consultant goes to his first planning meeting at OSU, topic the State's Infrastructure grants (\$10,000 grant for equipment minus training and technical support) which preceded and then paralleled the JumpStart project
- 12/95-3/96 A series of planning meetings take place picking sites, picking hardware and software, planning for the Internet bootcamp, and other support activities.
- 12/28/95 PORTALS, using the HEA II-B grant, funded 10 of the 25 public libraries connected as part of the State Library's Jumpstart I. These libraries were: Chiloquin Branch, Klamath County Library; Driftwood Library of Lincoln City; Dufur School/Community Library; Elgin Public Library; Illinois Valley Branch, Josephine County Library; Langlois Public Library; Lebanon Public Library; Nyssa Public Library; Port Orford Public Library; and Seaside Public Library. The State library funded 11 additional JumpStart libraries from other sources. In addition, the State Library funded 25 more JumpStart II libraries using LCSA funding and other sources. Eight libraries that did not require training or support received \$10,000 infrastructure grants for equipment (funded by the State Library).
- 1-2/96 Rushton Brandis identifies Internet service providers for each library, negotiates individual contracts for each library, then tells each library who to call. Rushton Brandis' efforts enabled the libraries to avoid a major common difficulty in the connection of the rural libraries to the Internet process. His background as both librarian and former vendor

representative was a key asset. Subsequently, the State Library (via Rushton and the Grants Consultant) sent the monthly connection fee to each library and the library in turn paid the Internet Service Provider. While awkward, libraries had leverage with ISPs and gained a better sense of the costs involved. In the few cases (3 of the 25 sites in JumpStart I) where the nearest ISP was a long distance call away, the State Library paid for the long distance call. The original intent was to work with the Association of Oregon Independent Telephone Companies as the ISPs. This did not work (except in two cases, Halfway and Pine) because the independent phone companies were not prepared. Rushton Brandis used Mecklermedia's The List (<http://thelist.internet.com/>) and the Oregon Online Oregon Internet Service Providers list (<http://www.state.or.us/provider.htm>) to identify ISPs. He found that the rates and how they were computed varied greatly: \$1 per hour in Halfway, \$30/month for 60 hours, to \$20 a month unlimited. The number of hours connected to the Internet varied with each library. Some libraries (e.g., Driftwood) provide Internet access whenever the library is open, other libraries offer fewer hours of access.

- 1/96 Charlene Grasse, project manager at OSU, convened the Internet Bootcamp Project Team to plan first two-day training session and hardware/software purchase and installation. The team consisted of two software consultants, three OSU librarians, Diane Hall a librarian from Reference Link (a state Reference Referral Center program), and two Research Assistant automation specialists. OSL sub-contracted with OSU because it had the needed facilities, had done Internet training, was knowledgeable about Internet resources, and the State Library had one of its Reference Link nodes at the OSU library.
- 1/96 The Oregon Public Library Home Page for JumpStart libraries created. Available: WWW: <http://govinfo.kerr.orst.edu/jumpstart/jump.html> All participants viewed this website as the principal way of providing ongoing support to JumpStart libraries. The website contains links to web sites of interest, e-mail form for communication with other JumpStart participants and OSU technical support.
- 3/96-12/96 Stephen Mosley hired by OSU to provide technical assistance to the JumpStart libraries. Introduced at the first Boot Camp.
- 3/18-19/96 First two-day JumpStart bootcamp training session given at Valley Library OSU. Twenty-four libraries participate. Topics covered include presentations by various key participants including the State Librarian, State Library Network Development Consultant, and OSU technical support staff; introductions to Netscape, information sources on the Internet, library catalogs on the Internet, the Government Information Sharing Project; a session on dialing into the Internet service providers, hands on sessions including introduction of the equipment to be used at each library; and an introduction to potential policy issues, problems, and solutions. Each library received its equipment (and transported it back to the library) at the end of the bootcamp.
- 4/96 Internet service to officially start at each JumpStart I library.
- 7/96 Application process for JumpStart II begun.
- 8-9/96 Rushton Brandis again makes arrangements for JumpStart II libraries connections with ISPs. In this case due to budget restrictions the State Library paid all the bills (rather than the individual libraries).

- 10/96 Second two-day JumpStart bootcamp training session given at Valley Library OSU. Twenty-two libraries participate. Second session includes participants from the first bootcamp to discuss their implementation experiences.
- 11/96 Proposition 47 passes, a statewide "cut and cap" initiative that will severely affect library budgets.
- 12/96 Technical support contract with OSU ends, OSL picks up technical support.
- 4/97 With funding for the JumpStart I libraries about to end and Proposition 47 reducing funding to public libraries across the state, the State Library calls each of the JumpStart libraries to see if another year of funding is needed. All libraries say they do not need funding they have made their own arrangements with local Internet Service Providers.
- 4/97 Stephen Mosley re-hired at OSU, this time as a CGI programmer.
- 5/97 Emporia State University (Kansas) takes over support of the Oregon Public Libraries JumpStart home page as principal person at OSU leaves to go to library school.
- 6/97 Feedback from the two bootcamps indicates the large range of skill levels among the participants; all liked the chance to interact with fellow librarians; wished there were better ways of anticipating use of the service; there was high interest in security and filtering software (in the case of filtering, some did, most did not); there was keen interest in sources for dialing in and reading e-mail; and ISPs ranged in the quality of phone lines, service, software, and costs.
- 6/97 The Oregon Regional List of Serials (ORULS) becomes available: WWW: <http://www.osl.state.or.us/oslhome/orulshome.html> WWW: <http://db.osl.state.or.us/oruls1.htm> A major statewide library resource providing an index to periodical and other serial holdings of 160 Oregon (and Washington) libraries. ORULS-Web contains approximately 250,000 holdings of 100,000 titles converted from MARC tapes and mounted on Windows NT server, using Inmagic software. Installed on machine purchased as part of the grant. Used regularly by JumpStart libraries and others.

Seaside Public Library's Experience

- 1995 Reita Fackerell, after 8 years working in the library, becomes library director. She had her own e-mail account through EdNet prior to the grant.
- Fall 1995 Reita Fackerell submits a JumpStart grant application, but would not have if the application was more complicated. For sample application form see Appendix J-1.
- 12/95 Library Director notified that Seaside library had received an award.
- 1/96 Library Director and staff plan for staff responsibilities and location of the workstation.
- 2/96 Library Director develops acceptable use policy approved by the library board on 3/1/96. Most useful was to download examples of policies by other libraries from the Internet. Board excited and supportive.

- 3/18-19/96 Internet Bootcamp attended by Reita Fackerell and Paula Clark local JumpStart Project Manager
- 3/23/96 Library Director only waited a couple of days after returning from bootcamp to begin public access so that she could train her staff but then went public.
- 3/96 Began publicity in local papers.
- 3/96 The Library Director made a presentation to the Seaside City Council, their chief concern was stopping "minors access to dirty pictures," but in general all excited.
- 4/94 Library Director and Project Manager begin staff and volunteer training in earnest. Reita commented that even now about half love the Internet and half hate it (and she does not push it).
- 9/96 Library Director estimates that it took 6 months for the service to take off. Initially, and unexpectedly, seniors (requesting health information) were primary clientele (75% of initial users). In the recent six months kids are heavy users (games, chat sessions, and homework help).

Driftwood Public Library, Lincoln City Experience

For Background on the Driftwood library see the *Driftwood Library Gazetteer Special Edition*, Appendix J-5

- 1965 Driftwood Public library begins.
- 1967 Library becomes a department within city government.
- 1980 Sue Jenkins is hired.
- 1993 Library moves to its present facility which tripled its space and raised circulation by 40%.
- 12/93 Yueh-lin Chen is hired as cataloger.
- 1994 JumpStart Advisory group starts, Sue Jenkins is a member representing small libraries.
- 1994 Sue Jenkins starts using the Internet, America Online is the only provider available. Her network use is in conjunction with obtaining her MLS via an Emporia State University distance education program.
- Fall 1995 Sue Jenkins applies for JumpStart grant.
- 12/95 JumpStart I grant awarded to the Driftwood library.
- 3/18-19/96 Sue Jenkins and Yueh-lin attend Internet Boot Camp. Both find it very useful.

- 3-9/96 The library kept the workstation in a back room while developing training materials, training staff and volunteers, and seeking board approval of policies. The Internet represents a large technological advance for the library: there is no computer at the reference desk nor cd-rom databases present. Sue Jenkins described the library board as very conservative and cautious. For example, neither the staff or public have e-mail access (board is concerned with e-mail liability), use of the Internet for entertainment, games, or chat is prohibited, children under 13 need parental permission to use Internet (corresponds with local school policy). In addition, all new Internet users must take a one hour lesson before use. Driftwood did not use four months of the connection paid for by the State Library fully because there was no public access permitted. Driftwood kept the equipment in the technical services area during this period, trained staff, and sought approval of public access policies. Sue Jenkins recognizes this approach is different from other libraries but believes the approach justified given the community (and that the introduction of the Internet was successful).
- 3-9/96 Volunteers recruited and trained. Ten volunteers trained, 6-7 are regulars allowing for 2 people covering 4 hours each day the library is open. Volunteers train users, are subject experts, and are given assignments to check out new sources on the Internet.
- 9/96 Workstation moved to its present public location in the reference area to "mild fanfare." Sue Jenkins, exhausted by the preparations necessary to get the workstation to the public, did not spend as much time as she had planned advertising the service's availability. Over half of initial use was by seniors. Other users included local small business (do I want the Internet for my office), genealogists, and the curious. Few students use due to restrictive policies. At present 60% are seniors, 30% teenagers (an alternative high school is in the same building), and 30% are middle aged (small business, stock quotes, tribal interests). At any point in time 80% of the users are new, 20% repeat users.
- 9/96 Sue Jenkins designed use policies using Corvallis and Salem Public Libraries policies. Both Seaside and Driftwood libraries use a signup sheet (user one day in advance signs up for one hour time slot). At Driftwood, users must take a one-time, one hour lesson conducted by librarian or volunteer in advance of use.
- 6/97 Of the 8 staff in the library, 2-3 have e-mail accounts at home at present.

Staff Development Activities

This section summarizes efforts by grant participants to obtain education and training for staff to better implement the grant objectives.

Reita Fackerell's, Seaside Library Director, chief source of continuing education is the Internet. In particular she made use of the Internet to download library policies in a wide range of areas and used them to create or update her own library's policies. Computer manuals are second in popularity! Also helpful are a range of listservs including stumpers-l, publib, oregon library lists, etc. The bootcamp was great. The JumpStart home page is heavily used by Reita and users (search engine section the most popular, followed by Federal statistics like CPI). Reita did not find information in magazines and journals either accessible or helpful. There is a local community college which offers an introduction to navigating the net and an introduction to HTML (which she plans to take).

Sue Jenkins completed two masters degrees (MLS from Emporia State and an MPA from Lewis and Clark) during the grant period. The Emporia program forced her to get involved with the Internet early (the program requires all students to have e-mail accounts). Courses and contacts with instructors gave Sue a better than average knowledge of the literature and latest professional thinking. Sue found web pages and listservs (digi-lib, adapt-l, state library lists, and Emporia State alumni list) to be most helpful. She also found the ISP to be a good source of information. Sue also participated in various state workshops and meetings (on the JumpStart advisory committee, reference roundtable, attendee the state library association workshop on the web). Sue strongly believes in staff training and is lobbying locally for the creation of a city-wide mini training lab where city staff would regularly update their information technology conceptual and skill base. Yueh-lin Chen also found a network of fellow Queens College graduates communicating by e-mail to be of particular help.

Project Work Products

This sub-section lists and describes the major products, services, and other outcomes as a result of the grant:

Oregon Public Libraries (Jumpstart) homepage. Available: WWW:
<http://govinfo.kerr.orst.edu/jumpstart/jump.html>

PORTALS HEA II-B grant provides seed money to fund the connection of 10 rural public libraries to the Internet including: Chiloquin Branch, Klamath County Library; Driftwood Library of Lincoln City; Dufur School/Community Library; Elgin Public Library; Illinois Valley Branch, Josephine County Library; Langlois Public Library; Lebanon Public Library; Nyssa Public Library; Port Orford Public Library; and Seaside Public Library. For a complete list of all libraries connected via the Oregon Connectivity grant project (of which JumpStart was part) see: Oregon Internet Connectivity Grant Project Sites, Available: WWW: <http://govinfo.kerr.orst.edu/jumpstart/ormap.html> the State Library using other sources funds the other JumpStart I participants and all of the JumpStart II participants.

PORTALS, using the HEA II-B grant to fund 10 rural JumpStart libraries, served as a catalyst to connecting the rest of Oregon's public libraries. To date 46 rural public and school libraries have Internet connections. In addition, eight libraries that did not require training or support received \$10,000 infrastructure grants for equipment (funded by the State Library). Altogether 95% of Oregon's public libraries have Internet connections.

Dissemination of Project Results

This sub-section identifies specific ways grant participants disseminated project findings to the local, state, and national communities and the profession including publications, videos, press releases, presentations, external training sessions, etc.

State Library

The State Library made active use of its library consultants, its LTLO - Letter to Libraries Online newsletter, Oregon Library Association meetings, and direct mailings to communicate with JumpStart libraries. Later the State Library used data reported by JumpStart libraries with database vendors to indicate that they did not really know what public libraries needed or wanted. The State Library did not have any contact with other places doing similar projects.

OSU

Stephen Mosley from OSU visited the JumpStart libraries for technical support. OSU communicated with JumpStart libraries via the Oregon Public Libraries web page (used heavily by both libraries interviewed), listserv (not used at all by the libraries visited), e-mail, and telephone. OSU produced the only article for national dissemination of project results so far:

Middleton, Cheryl and Cross, Judy. (Forthcoming). Connecting rural public libraries to the Internet; or "Will it fit in my car?" *Public Libraries*. (manuscript version included as Appendix J-4)

A group affiliated with the University of Southern Louisiana recently visited OSU to find out how the JumpStart program worked.

JumpStart Libraries

Seaside and Driftwood Libraries made active use of local media including newspapers, radio and cable TV interviews, brochures (for an example see Appendix J-6), and photographs. The State Library required JumpStart libraries to include press release materials in their monthly evaluation reports. The State Library tracked mentions of the JumpStart program in Oregon newspapers.

Evaluation Efforts

This section identifies specific ways each participant used to evaluate the project. The State Library filed the report required by PORTALS and the grant Evaluation Consultant in February (Perez, 1997) noting on p. 3 that

The project supervisor is tracking progress of the Jumpstart grant recipients. Program participants are tracking and making monthly reports on evaluation indicators, including 1) number of public access sessions, 2) number of connect hours, 3) number of library program presentations relating to the service, 4) publicity releases to local media, and 5) "success story" anecdotal reports.

In addition, OSL regularly contacted the JumpStart libraries via e-mail, phone, and fax. In April 1997, OSL called all JumpStart sites to inquiry about the program's success and to find out if there was a need for additional funding due to Proposition 47 cutbacks. OSU conducted its own survey evaluation of the JumpStart libraries after each bootcamp regarding its effectiveness (for a sample survey response see Appendix J-7). The State Library Reference Link regional sites noticed an increase in use particularly e-mail from JumpStart libraries attributable to JumpStart connections.

The local libraries interviewed gathered much of their evaluative information as part of the face-to-face interaction with users during training sessions. In one case, the local library collected the evaluative data required by the state but did not use the data itself. In the other case, the library did not collect or report the evaluative data. There appeared to be no systematic attempts to use this data to step back and assess the impacts of the service on the library, librarians, or users.

Lessons Learned

This sub-section identifies significant lessons learned by the grant participants which may also be of interest to similar organizations in other settings.

Simplified Grant Application Form a Big Plus

The JumpStart grant was the first grant Reita Fackerell, at the time a newly appointed Library Director of the Seaside Public Library, applied for as a library director. She viewed any grant application process as daunting. Yet, when she received the grant application, she found the application was straight forward, "just fill-in-the-blank...a no brainer." This simplified approach was a big asset given the targeted group for the project.

Computer Literacy a Must

The libraries that had the most problems were the ones in which those involved had the least (or no) computer literacy skills. JumpStart organizers thought they had solved the problem by permitting anyone from the community to be project manager not just librarians. But in some communities either no computer literate people existed or the library found no one to participate. In these cases, intensive literacy training would need to be done first prior to the Internet bootcamp. In the future, further effort would be made via phone or mail survey to identify the computer skill level of bootcamp participants in advance.

Internet Bootcamp

The bootcamps were very successful. OHS and the State Library managed a range of potential issues including: coping with the diverse range of computer/Internet knowledge among bootcamp participants, distance to the bootcamp training site (a problem for some but all made it), inability to do hands-on training of dialing up Internet Service Provider (as they were reluctant to release passwords), inability to connect to the Internet immediately upon returning from the bootcamp (due to wiring, phone line, and other technical problems -- eventually resolved). The decision to give the bootcamp participants their equipment at the end of the weekend was a useful motivator to attend and learn.

Bootcamp participants, in hindsight, wished for more exchange with librarians experienced in introducing the Internet into their communities; role-play at the keyboard of how a librarian might introduce the Internet to a new user (in particular Reita stressed the need to learn how not to make anxious new users feel like they are dummies); more detailed instruction on Internet tools: ftp, telnet, gopher, and search engines (Middleton & Cross, forthcoming); more Internet "surfing" experience (using the Internet as a reference tool) with experts present to troubleshoot and guide; both libraries encountered new and unexpected user information needs, prominent among them was the need for health information; and better solutions to their security concerns (discussed below). Several felt more attention should be given to hands on troubleshooting of equipment including nitty gritty like diagnosing common problems, how to install RAM and a hard disk, etc. Sue Jenkins stressed the need for good search skills (beginning with online searching and moving to Internet searching). Rushton Brandis would insist on basic computer literacy skills in advance of the bootcamp. Those who did not have the basic computer literacy skills would be required to attend a computer literacy workshop prior to participating in the JumpStart bootcamp.

Turnkey Approach

The decision to provide everyone with the same pre-tested equipment with the same pre-installed software paid repeated dividends beginning at the bootcamp (all could be trained on the same hardware and software) and later when providing technical support. Volume purchasing reduced hardware and software costs. The choice and pre-configuration of software allowed the local libraries to, in general, simply turn their equipment on and be automatically connected to the Internet.

Rushton Brandis (among others) debated the buy local v. turnkey approach. The need to standardize for technical support and reduced cost due to volume buying swayed him to the turn key approach. He did recognize that this approach did not promote local library - dealer ties and that local dealers would be more reluctant to repair defective equipment (which was an issue in Seaside and Lincoln City).

All in all Ruston Brandis and the OSU staff are to be applauded for their careful choices of hardware and software within a tight budget. Involving experienced OSU purchasing agents made an important difference.

Buy the Best Technology and Connection

Sue Jenkins, in particular, mentioned that she felt the technology was under powered. Sue's library was in the first JumpStart cohort (their equipment is now more than a year old) and some of the problems she mentioned the State Library (or OHS) fixed in the second cohort's equipment. Sue is in the process of upgrading her equipment including replacing her hard disk (nothing but problems), increasing RAM to 32 MB, adding a graphics printer (she has one user who needs to download star maps and couldn't, and other who wishes to download graphics), would like to get a faster processor (was upgraded to 133 MHz for JumpStart II libraries), and a larger 17" (was upgraded to 17" for JumpStart II libraries) or 20" monitor (the 14" monitor is too small for the seniors who are prime users and for group training sessions). None of the above comments were meant as criticism of OSU and the State library who as both noted "did the best they could with the budget they had." The evaluators make these observations in the context of advice to others planning a similar project elsewhere.

Both libraries thought it was a good idea to have the Internet connection active every hour the library was open. Several librarians (and Internet service providers) wondered whether an ISDN connection would be better (all complained of slow system response, the onsite evaluator also noted slow response as well). Rushton Brandis noted that OSL did not employ ISDN connections due to the lack of general availability and high cost. Some vendors proposed the use of dedicated 28.8K lines in a few cases.

The State Library would consider paying for a second phone line for the library as part of the connection package (libraries would later pick up the cost) for future grant programs. For many libraries the second phone line represented a significant initial barrier. But the State Library felt for JumpStart I and II that the additional phone line should be part of the libraries contribution to the project.

Technical Support a Central Requirement for a Successful Program

First, the recognition of the need for initial, ongoing technical support should be commended. Second, OSU's Stephen Mosley brought at least three key assets to the technical support he provided, as reported by the librarians the evaluator visited (and echoed by the State Library Networking

Consultant):

- He was technically knowledgeable.
- "He never made me (the local librarian) like an imbecile no matter what I asked!"
- He was genuinely committed to the success of each library in resolving its technical glitches.

Stephen Mosley in his technical support role supplied a key ingredient in the success of the JumpStart project despite being in a position with many incentives to ignore a request for technical assistance or merely respond in an unhelpful, safe, bureaucratic, fashion to often poorly expressed technical needs from remote locations.

The OSU technical support contract ran roughly from March - December 1996, nine months for the JumpStart I libraries and three months for the JumpStart II libraries. The State Library assumed the technical consultation role at the end of the OSU contract but at a reduced level. The State Library Network Development Consultant reports few requests from the JumpStart I libraries and diminishing requests from JumpStart II libraries. Three JumpStart II sites have persistent problems to be resolved. The need for, and length of, technical support appears to vary greatly from library to library. All benefitted from an initial period of technical support including the capacity for onsite visits as well as telephone and e-mail consultation. The ending of the technical support provided by OSU, however valuable, forced the libraries to make local arrangements for technical support or otherwise become self-sufficient. This development is a necessary transitional step. The evaluator would tentatively suggest, based on the JumpStart experience, that technical support for six-months is adequate in most cases.

The evaluator explored with the librarians at the two libraries visited the feasibility of a group of Oregon libraries cooperatively arranging for technical support. The Seaside librarian promptly responded that she would willing commit \$300 per year for technical support like that provided by Stephen Mosley (one site visit per year -- additional visits on a pay as you go basis and unlimited telephone and e-mail consultation). The Driftwood (Lincoln City) librarian said that they had made local arrangements and would likely not participate. As suggested below, cooperative technical support bears further investigation.

An important early decision was to standardize the hardware and software used. This decision made it possible to provide meaningful technical support (probably the only way to do it). However, this made it difficult for libraries who used different hardware (Mac) and followed different software upgrade paths (Sue Jenkins moved from Windows 3.1 to Windows 95 which worked noticeably better but which Stephen Mosley did not know).

Time and Timing

Even the most successful libraries took months after the bootcamp and receipt of their equipment to either begin public access to the Internet (many wished to train their library staff before going public, others faced wiring or phone line problems, still others had to negotiate various library board approvals) or get the type of public use of the Internet service they expected. For most public librarians, attention to any one area (like the introduction of a new Internet service) is, at best, episodic. Most librarians did not credit the time necessary to simply reduce their own, their staff's, and

their board's (and other key stakeholder's) ignorance. Sue Jenkins remarked that libraries should expect more use than they imagined (involving more staff time than expected), but that use takes time to build.

Yueh-lin Chen remarked that her library spent months worrying and trying to prepare for every eventuality only to discover that none of the problems anticipated occurred. She along with Reita Fackerell at Seaside Public Library advocated waiting for a problem to occur before developing policies and procedures rather than doing too much pre-planning.

Policy Issues are Local and Take Time to Work Out

The principal problem faced by many libraries was dealing with the question of minors access to pornography. Developing policies took more time than expected. Different locations developed different policies depending on local circumstance. In some cases, the State Library asked the State Library's Intellectual Freedom Committee to work with local communities. Librarians who had first hand experience with these and other issues discussed them at the Internet Boot Camp. In sum, be prepared for a time consuming but necessary policy process, allow for local solutions, prepare librarians for likely issues and current professional thinking and resources, use local professionals experienced with the issues, and provide backup support where needed.

Position the Workstation Directly in the Public Eye

Prior to the introduction of the service in the JumpStart libraries there was great worry about inappropriate use of the service (i.e., exposing minors to pornography). In the two libraries visited, these concerns proved to be non-issues. The librarians attribute the appropriate use of the service to two decisions. First, placement of the Internet workstation in a prominent public location. One librarian remarked, "If you are going to be using pornography, the whole world will know that you are." Another librarian noted that public placement, made librarian supervision of the workstation easier. A second factor was the extensive prior discussion among library staff and library board (and other key stakeholders like city government officials) about what would constitute acceptable use. This policy making process contributed to the establishment of shared norms of behavior and appropriate sanctions while educating key stakeholders to the issues. Prominent placement of the workstation is a great advertisement for its use.

Internet Access: Matching Reality to your Own, your Staff, and your Users Expectations

A JumpStart library is seen as the central place in the community to test drive this "new-fangled Internet thing" with several important consequences for libraries:

- **JumpStart librarians must pro-actively take the lead in establishing norms and expectations for this new information aid.** Most users come to "test-drive" the Internet at the library with inflated expectations of what the Internet can do for them. Both sites visited, independently mentioned the Intel TV commercials as a principal inflationary culprit. When users use the Internet at the library their expectations are not likely to be met. Users will blame themselves ("I'm just dumb when it comes to computers.") or the library (the technology is not state-of-the-art), or the librarian (the librarians are not all-knowing). Solutions to this situation are more difficult due to: librarians inevitable feelings of inadequacy, less than state-of-the-art equipment, public pre-conceptions about libraries, etc. Successful librarians recognize their leadership role in Internet use norm-

setting. Successful librarians move their community's focus from a norm based on a present oriented imperfect product (the library's workstation, librarian's uncertain knowledge, and the user's anxiety) to a perfectible learning process (where it is ok to be imperfect if there is tangible commitment by the user, librarian, and library to improvement).

- **JumpStart libraries must seek fair compensation for its Internet sales and training role.** Libraries introduce community members to computers and the Internet, they train the community in Internet use, and serve as a resource for technical problem solution and information resource finding. The library's purchase of equipment or services from certain companies is perceived as a strong endorsement of that company. In essence, the library is serving as an unpaid member of the Internet service providers' and computer stores' sales and technical support departments. Compensation should be sought not only from the businesses involved but also from the community which must recognize the need for a technologically literate workforce. Public spirited ISP and computer stores often give libraries discounted rates. But are these companies aware that discounts to libraries make good business sense? At minimum, libraries should obtain free connection to the Internet during their public hours of operation. From an ISP perspective such an investment pays for itself quickly.
- **Libraries must recognize that the training of new Internet users will not go away.** Both libraries visited noted that there were fewer than expected regular users of the Internet service (estimated by both libraries visited as 20% of total). Instead there was a constant stream into the library of new or novice Internet users. Most users who found the Internet useful purchased their own (office or home) equipment and services to access the Internet. The costs of continuously training new users is high in staff time, training materials, and inefficient use by novice users of technological resources. The point is not that libraries should not be providing this service. The libraries visited would not consider ending their Internet service. The point is that libraries, particularly those offering the service for the first time, should know who their likely clientele will be and the resulting likely cost areas and costs.

JumpStart libraries were slow to recognize and plan for these costs.

E-mail Access

The decision to allow staff or users to have e-mail access remains unresolved at many libraries. The libraries' concern is with inappropriate use by patrons and the resulting liability of the library. The issue is somewhat resolved by telling users of various services offering free e-mail (for a trial period). Reluctance by these libraries to get involved with e-mail encourages interested users to get their own accounts with the local ISPs.

Hidden Costs

There were several unanticipated costs to libraries when connecting to the Internet which were uncovered including: costs to install additional wiring for power to the workstation, cost of an additional phone line, cost of reproducing brochures and Internet training materials (Sue Jenkins printed over 400 copies of a Internet workbooks -- money well spent, but expensive if not in the budget), printer toner and paper costs, unanticipated equipment repair and software update, staff time required to be introduced to the Internet, staff time needed to train users often one-on-one, and the high cost of

obtaining help to repair potential broken computer components (charges of \$75-100\$ per hour seem the norm). Reita Fackerell's annual costs include \$40/month for extra phone line, \$250 for Internet access from ISP, \$99 for toner cartridge 4 times a year, \$200 to unexpectedly replace a broken printer drum, and \$100 for an unexpected modem repair. Both Sue and Reita suggest budgeting for unanticipated repairs and equipment upgrades. Both believe a backup workstation (also used for staff) would be useful.

Role of Volunteers

The JumpStart libraries visited appear to have had little problem recruiting a local cadre of volunteer Internet trainers. Sue Jenkins at the Driftwood Library developed a training package which she uses with staff, volunteer trainers, and library users (see Appendix J-8). She found enough volunteers to offer user training for several hours each day. Sue Jenkins or Yueh-lin Chen train volunteers and then schedule them to train users during specific hours each week. In addition, Sue Jenkins gives volunteers assignments to check out new Internet resources and assigns each volunteer to be a subject expert in specific areas. While some volunteers are simply heavy users of the service, most play a critical role in training fellow community members in Internet use.

User Training: An Important, Learned Skill

Training of Internet end users apparently did not receive enough attention at the bootcamp. Most JumpStart libraries learned how on their own by first training themselves, their staff, their volunteers and then their users. This process while laborious and time consuming did increase staff ownership and helped to embed the service within the organization. The staff, together, figured out what the Internet was and how to tell others what mattered about it. Sue Jenkins produced a training manual for use in required one hour user training sessions (see Appendix J-8). The manual was as much use in training library staff as it was to users. Yueh-lin Chen remarked that her library learned the hard way to keep handouts short --otherwise patrons will not read it. Reita Fackerell stressed learning the art of "never seeming to be bothered" when users asked for help. New users were sensitive to asking for too much assistance from anyone. Reita also stressed the importance of learning the non-verbal cues (screen frozen for 3 minutes) suggesting a patron needs help. All wished for more instruction in this area.

Ongoing Security Concerns

Both libraries visited by the evaluator identified problems with users tampering with various customizable features of the application and operating system software. Uniformly these "security breaches" were not done by malicious "crackers." Some users sought to customize the system to the settings they use at home, some were impatient with the slow system response time, other users were merely curious. Both libraries were from the first JumpStart group. The second JumpStart group received a security software fix. It is unclear whether the security software meets the libraries needs. The State Library Network consultant did report that several of the small rural libraries that received the security software found it confusing and had it disabled. The two phase one JumpStart libraries the evaluator visited appear not to know about the software fix (perhaps in part because the JumpStart II libraries' experience with the security software was so mixed).

Unexpected Bonus: New Users, New Awareness of Community's Information Needs

Both libraries independently remarked that this service brought many new users to the library and that some of these users have since used other library services. In addition, the libraries note an

expansion of their awareness of their community and its information needs. For example, neither library realized the extent of its retired community, nor their interest in health information. The introduction of the Internet brought these users and their information needs to the fore.

Reasonable Rules, Reasonably Enforced

The JumpStart project rules seem both thoughtfully constructed, minimal, and reasonable beginning with the simplified application form, continuing with requirements to prepare the site (wiring and phone), attend the bootcamp, prepare a locally endorsed, acceptable use policy, conduct ongoing publicity campaigns, and file monthly evaluation reports. Enforcement, when the letter of the rules was not met by a participating library, was most often in the form of additional help and guidance.

Evaluation the Key

The State Library and OSU devised a useful mechanism to begin to pragmatically evaluate the JumpStart project. The participating libraries collected a wealth of data on their experiences bringing the Internet to their communities. But has anyone systematically analyzed their evaluative data to discover the story it tells? Now, at the successful conclusion of the initial flurry of activity, is the time to examine this data. OSL and OSU may have the skill to analyze the data, but what of the participating rural public libraries? The Onsite Evaluators initial impression is that the JumpStart libraries would now benefit from an evaluation workshop. The objectives of the workshop would be to explain in pragmatic terms what evaluation is and how it is done, convince the participants that evaluation pays dividends, begin to evaluate some of the local data already collected, and collectively devise efficient and effective evaluation mechanisms that will work upon their return to the local setting. Why collect the data and then not analyze it or train local librarians to interpret the data collected?

Successful Partnerships Combining Enlightened Self-Interest and Service

The PORTALS use of HEA II-B funding to the State Library for JumpStart provided crucial, timely, seed money to get the project started. The State Library with its ties to the Oregon library community successfully assumed a leadership role coordinating and smoothing the diverse needs of the participants and committing its own resources when the project would otherwise founder. Notable was the Network Service Consultant's negotiations for provision of Internet connection service on behalf of each JumpStart library with the numerous Internet Service Providers. The project could well have foundered or come to a halt without these negotiations.

The State Library's partnership with OSU was another key element in the project's success. The State Library recognized that OSU's Valley Library staff possessed the additional purchasing, technical support, and training expertise needed to make the JumpStart project succeed. OSU was already recognized as a trusted provider of reference information through its participation in the State Library's Valley Link Reference and Referral Center program. OSU is a land grant university with an incentive to serve a wider audience than simply its academic community. But the OSU library also recognized that in order to justify the resource commitment needed to fund a move to a digital library environment there must be more than a Internet connected university – the state's citizens must be connected as well (see Middleton & Cross, forthcoming).

The connection of JumpStart libraries provides leverage to the State Library in the database licensing negotiations with various database vendors. The State Library can point out the 95% rate of Internet connection among the state's public libraries and that their needs for information (as documented in their JumpStart reports) are far more diverse than previously thought.

In some cases, the JumpStart library's experience prompted other institutions, like city government in Junction City, to connect to the Internet as well. The paid JumpStart library connection in some rural locations prompted ISPs to venture into new geographic areas that would otherwise be ignored.

Next Steps

This sub-section suggests next steps to be taken as this grant period comes to an end and to advance the project's objectives after the funding period.

Local Libraries

Both of the libraries visited by the evaluator independently identified similar next steps:

- **Libraries as servers and publishers not only clients and intermediaries.** The sites visited both had active plans for a library homepage. Priorities were to make the library catalog, databases, hours, and programs available conducting interactive or online reference and referral assistance, and with forms for book renewals, signups for library programs and other library services, and interlibrary loans not far behind. Libraries might also consider being sites for provision of city government information and services as well. There appears to be a window of opportunity for rural libraries to establish themselves in these rural communities as the local government information technology experts. This moment should be seized if possible. Librarians will need training in this effort, an area the evaluator discussed with the OSU library staff responsible for the bootcamp. Librarians will also need space on a shared server, at least initially. Local Internet service providers offer one obvious source. Another might be a shared State Library site -- with present technology, the server need not be local. One unexpected area in which some librarians will need training is in the identification of local information to include on the library server. These are largely mindset problems: some librarians are too book oriented, others are not trained in the creation of information only in its organization and verbal and written presentation.
- **Develop Local Area Networks (LAN).** The two libraries visited were considering LAN development in partnership with city government (both were officially units of city government). Both recognized the benefits of shared resources via LAN connection. The evaluator pointed out potential benefits of local links to other non-profit organizations as well (e.g., local visitor and convention board, chamber of commerce, etc.)
- **Upgrade Internet connection to 56K and eventually T1 leased lines.** The existing connections are slow, users require higher bandwidth (with graphics and eventually sound), and the prices on faster service is dropping. The two libraries visited are ripe for the next level of improvement of their connection. It may well be that more lines, in addition to upgraded lines may eventually be needed as well!

- **Purchase of an additional Internet workstation.** This work station would serve as a backup, be used by staff, and be available for increased user demand. The public has more access to the Internet than the library staff at some locations. In one case, the Library Board was going slow on allowing staff to have e-mail accounts -- the fear being inappropriate use.

All of these steps are clear indicators of successful adoption of the Internet service by these JumpStart libraries. Both libraries face a tight budgetary reality, particularly over the next fiscal year. Sue Jenkins strongly advocated for the library as being the information technology training center for city government (and the community). She is seeking funds to create a mini training lab.

State Library

The State library is presently planning a third JumpStart phase connecting more school libraries and rural schools to the Internet. A principal future focus now that libraries have Internet connections will be increasing the useful content available. Recently the State Library made the Oregon Regional List of Serials (ORULS) available on its web site (this is housed on a computer purchased with grant funds). This is a major aid to resource sharing and interlibrary loan and will be regularly used by JumpStart libraries. The State Library as part of a State-wide database licensing committee is completing negotiations with UMI on providing web based access to the full text of the Oregonian (Oregon's principal paper) and several other IAC indexes to popular materials. There is also interest in adding library catalogs to the State Library web site with various possible schemes being actively pursued. The library is looking closely at the impact of the Telecommunications Act (P.L. 104-104) discounted rates (may mean 70-80% discount for rural Oregon libraries). There is the expectation that within two years JumpStart libraries will move to T1 lines (some already have). It is unclear who will fund the migration to the faster connections, federal LSTA funding is possible.

Recommendations

The evaluators offer the following recommendations based on the onsite visit.

State Library

The JumpStart project is a clear success. Efforts to continue the project's success might include:

- **JumpStart Sharing/Planning Sessions:** Several librarians interviewed commented that they missed opportunities to meet with fellow JumpStart participants to share experiences and solutions to mutual problems. One or more sessions which sought to share and summarize the JumpStart experience for Oregon libraries would benefit everyone. In addition to participating libraries, Internet service providers, computer and database vendors, OSU, PORTALS, funding agencies and others might also be invited and play a structured role. One component of such a session should be addressed to assessing common needs for next steps as an aid to State Library planning.
- **JumpStart Server Project feasibility:** Moving from client to server on the Internet is a natural progression for the JumpStart libraries. While there is much to consider, the State Library is the logical first choice to take the lead. One approach that deserves consideration is a turnkey approach similar to that offered in the original JumpStart program. The State Library could offer server space to each library with pre-scripted HTML template home pages to start. This approach would motivate when providing

training in HTML coding and introducing equipment, hardware, and software considerations when locally mounting a server. A number of other cooperative projects among participating libraries might be coordinated at the same time.

- **LAN Training:** Even small libraries, particularly those who are part of a municipal government, now see the benefits of local area networks. An introduction to LANS for library managers session designed to accomplish no more than enable librarians to be smart users of LAN technology applied to libraries might be a good first start. Oregon libraries such as the Corvallis Public Library, which has a well developed LAN, might have much to contribute here. The State Library might broker a group discount for more elaborate LAN training if there was sufficient interest.
- **Train librarians how to do information technology planning:** In order for a library to receive FCC universal fund money a library must submit its information technology plans and costs. Already libraries worry about what the new legislation means, how to do it etc. This is a perfect opportunity for the State Library to develop a program, maybe a boot camp(!), to help libraries to think about and develop an overall information technology plan for immediate and future needs while they obtain their universal fund money. If equipment was the carrot for JumpStart the FCC universal fund money will work here.
- **Investigate the desirability and feasibility of cooperative technical support:** Is there a need for technical support at these JumpStart libraries? Are the libraries willing to cooperatively pay for it? Could the State Library broker an arrangement? The evaluators recommend the State Library find out.
- **Train the local trainers, train the local technical support personnel:** Rushton Brandis, among others, recognizes that as a result of JumpStart there is a cadre of neophyte technical experts and Internet trainers who could be offered additional training to continuously enhance their skills. There appears to be a window of opportunity for rural libraries to establish themselves in these rural communities as the local government information technology experts. This moment should be seized if possible. In some cases, library staffs are not the local experts and need to be trained in Internet use. In either case, it would be a shame having identified these local experts and trainers, and provided some initial training, to let their skills and interest languish. Could the Internet could be used to deliver mini-courses and other training directly to these local libraries? Perhaps the real issue is who will take on the task (and fund it)?
- **Find Out What Happened, Get the Story Out!** The State Library required that each library file monthly reports. OSU surveyed JumpStart libraries to find out about the suitability of training. Yet none of this collected data appears to be analyzed or otherwise used. Indeed, with the exception of Middleton & Cross (Forthcoming), the JumpStart story is yet to be told. There is much that others, in other states and around the world, could learn from the JumpStart experience. Get the word out!

The State Library has taken the plunge becoming a strong force for the introduction and use of information technology in the rural public libraries of the state. The range of potentially useful information technologies is large and increasing. If the State Library does not continue to exert its leadership in this area, JumpStart would be an opportunity successfully created by the State Library and then lost.

PORTALS

A new interim Executive is in place and PORTALS engaged in the process of strategically planning its future direction, see for example its draft strategic plan (Available: WWW: <http://www.portals.org/plantoplan.html>). As PORTALS re-thinks its role and focuses on the scholarly information needs of its members a project in support of Oregon's rural public libraries may be very peripheral to PORTALS' current interests. The notion of service to the larger community may not currently be a part of every PORTALS members' mission (the way it is at land-grant OSU). The need to create the capacity to electronically interact with communities, large and small, across state for marketing, admissions, and distance education probably appears too visionary for some. Certainly the idea that a networked environment, in which all connect in ways previously unimaginable, creates new unexplored opportunities and responsibilities is only now being grasped by the leading academic institutions in the U.S.

PORTALS provided key funding to the JumpStart program at the critical starting point. PORTALS can claim its share of credit for this effort and may wish to do so more aggressively. Future funding possibilities for rural and public and school libraries and the Internet which require multi-type library or consortia participation are likely. PORTALS, building on its successes here, can play an active, responsible role in this area should it choose to do so.

IV. Multnomah County Library

This section of the report examines the Multnomah County Library's programmatic component of the HEA II-B grant including: program objectives using language from the original grant proposal and outcomes to date in brief, the evaluator's activities in order to compile this section of the report, a chronological summary of key events and accomplishments, staff development activities, project work products, efforts to disseminate project results, Multnomah County Library's evaluation efforts, lessons learned, next steps, and the evaluators' recommendations.

Project Objectives and Outcomes in Brief

This sub-section identifies initial project objectives (using text from the grant proposal) for the MCL portion of the HEA II-B grant and summarizes progress to date.

Multnomah County Library (MCL), in partnership with the City of Portland, METRO, and other regional governments, will enhance citizen access and involvement with local government via the Internet and increase county government's capacity to utilize the Internet in its functioning. Specifically, MCL will:

- **Increase Regional and Local Governments Use of the Internet:** Develop the Regional Information Technology Network (RITNet). RITNet provides a virtual place for local governments to meet, share information, and offer services. RITNet provides user-friendly citizen access to county and regional government information (including: local government services and personnel phone directories, county agency profiles, full-text of agency documents, calendars, and consumer health information) and services (including e-mail access to county officials, citizen-official computer conferencing via Caucus, and delivery of services such as licenses and park reservation forms via Internet forms) and gateway links to related sites (such as METRO, surrounding county governments, and the Portland visitors bureau). The four counties served include Multnomah, Clackamas, Washington and Clark (WA) and METRO (the regional governing group). In addition to those counties mentioned, the city governments within those counties and some non-profit organizations also participate. Citizen access to county government via RITNet will be supported by user education, distance learning, computer conferencing, and helplines.

MCL's RITNet met or exceeded all of its grant objectives in this area with the exception of calendars (in the works), e-mail (provides e-mail to content providers but many use the county's own e-mail for their WWW "mailto" link), computer conferencing (tried but was disappointing), delivery of services (presently used for job announcements and applications with other services in the works), and distance education (focus is on distance education at the regional level connected with aiding government officials building websites, see for example, the Community Information System Project under dissemination activities below).

- **Assist in the Integration of the Internet into County and Local Government Functioning:** Assist adoption of Internet use by area county and local governments by providing technical capacity (SUN server, network links between county SAA and Novell LANs and library TCP networks) and Internet connection, staff development and training, technical assistance with web page development and data conversion.

MCL, supported by the grant, is a key catalyst in the coordination of information service delivery and the integration of Internet use in the governments of Multnomah and surrounding counties and with the City of Portland's Community Information Services Program.

- **Conduct Ongoing User Evaluation to Determine Information and Service Delivery:** Adjust existing and initiate new information provision and services as a result of ongoing user-based evaluation/feedback. Develop an advisory committee from among government agencies.

MCL is active in user and stakeholder evaluation and in the public presentation of evaluation findings via the Internet. See for example,

Reed, Donna. (1997, February 12). Hatfield Grant-- Community information module: A review. Available: WWW: <http://www.multnomah.lib.or.us/~donnare/report/>

Reed, Donna. (1995 June 18 to present). Multnomah County Library Web Server Statistics. Available: WWW: <http://www.multnomah.lib.or.us/usage/>

Reed, Donna. We would like to hear from you: WWW feedback form. Available: WWW: <http://www.multnomah.lib.or.us/indform.html>

RITNet is located in the Multnomah County Library and serves: Multnomah, Clackamas, Washington and Clark (WA) counties. Donna Reed notes (1997, February) the project assumes "that citizens' information needs cross geographical and political boundaries. Its purpose is to provide links to regional governmental information, to provide opportunities for citizen involvement and to help assure that there is adequate public access to the Internet in Multnomah County and throughout the region."

Summary of Evaluator's Onsite Activities

The Onsite Evaluator reviewed all Multnomah County Library and related web sites including the MCL website, RITNet (for recommendations see Appendix P-1), METRO, and a range of county government WWW sites. He reviewed all available documentation including the original grant proposal, the Evaluation Consultant's reports, and the MCL evaluation report helpfully made available on a web page (Reed, 1997, February 12). He prepared a preliminary draft report indicating current knowledge and likely onsite questions. The Onsite Evaluator met with Donna Reed, Community Information System Program Specialist, on June 4th and 9th 1997. Donna Reed coordinates the MCL web site, the county website, and RITNet. The Onsite Evaluator attended a RITNet Advisory Council meeting on June 19, 1997. The RITNet Advisory Council provides feedback on various RITNet activities and is involved in planning future endeavors. The Onsite Evaluator met on June 19, 1997 with Bill McCabe, webmaster of the Washington County Government website and Celia Heron, Director of the Office of Neighborhood Associations of the City of Portland, who heads the city's Information and Referral unit, and is webmaster of the City of Portland website. These individuals benefitted from RITNet's efforts and serve on the Advisory Council.

The Onsite Evaluator did not meet with Jeanne Goodrich, Deputy Director and grant Program Administrator. Initially, she was in charge of a difficult staff reduction and transition due to Proposition 47 reductions in the MCL budget. Later, the Onsite Evaluator determined it was not necessary to meet with her because he had more than enough data provided through the above outlined

means. Brian Williams, Manager, Automated Systems, Multnomah County Library, who supervises Donna Reed on the systems side was not contacted. Again the Onsite Evaluator determined that he had adequate information to complete the report without further data collection.

The MCL key liaison to the evaluation study reviewed the Onsite Evaluator's findings, in the form of a draft report.

Chronological Summary of Key Events and Accomplishments

Summarized, in chronological fashion below, are key activities, milestones, outcomes, and accomplishments including principal work products to date given the project's objectives. Omitted are regular, ongoing, phone conversations or meetings at various conferences between the Evaluation Consultant and PORTALS staff or project participants.

- 6/95 Multnomah County Library web site designed by K.C. Davenport, the library's graphic artist, who worked with MCL's Web Builder's Committee.

- Summer
1995 Rhys Scholes in Multnomah County Commission Chair Beverly Stein's office conceives of the idea that becomes RITNet.

- 9/5/95 Multnomah County website launched based on the County phone directory. This was Donna's first site and there was a lot of experimentation. Much time was spent positioning everyone on the site so that they would be pleased. A plus was that the Commission Chair was network savvy. For example, she did not insist that the county government be on her web page!

- 9/95 (County) District Attorney's web site launched, among the first in county government.

- 11/95 County Chair Beverly Stein's web site launched.

- 11/95 RITNet Advisory Council formed and members begin meeting at Portland State University Library. Participants include: Regional governmental entities, Multnomah County Library, PORTALS, Portland State faculty, Portland Office of Neighborhood Associations, Cable access, members of the business community, public schools, Oregon Civic Network Coalition, U.S. Rep. Furse's office, then U.S. Rep. Wyden's office, and US West Communications. Three sub-committees are created: design, standards, and access/citizen involvement. Donna Reed, not yet hired by MCL but already designing the county's web site, attends these meetings.

The Design Committee met, designed the website using Donna's county web site as a prototype, and then disbanded.

The Standards Committee consisted of Donna, Celia Heron, and Jeanne Goodrich, Deputy Director/Program Administrator at MCL. They looked at existing standards (not that many initially) findings are incorporated ultimately into Multnomah County Web Standards. Available: WWW: <http://www.multnomah.lib.or.us/cisp/mcstan.html> which includes standards information used (and enforced) by MCL, RITNet, METRO and others in the areas of content, protocol, style, ethics/fair use, plus links to sites elsewhere. Standards

group came to rely on local volunteer Neil McBurnett, Lucent Technologies standards expert and founding member of BoulderNet, to supply various relevant standards as they become available. Celia Heron, viewing herself as non-technical, wanted preparation of clear explanations of the standards adopted so that non-technical people could understand what the standard was about and why it mattered. The process followed was that the standards committee would identify a standard and re-work it for the local setting, publish the standard on the Multnomah County Web Standards site, bring it to the RITNet advisory board for discussion, and then incorporate the standard (including local feedback) in the various web pages being designed. RITNet, the Multnomah County web page, and City of Portland web page (and others) all adopted standards derived from this committee's work. Most recent concern is meeting American Disability Act standards.

- 11/95 RITNet advisory group starts a listserv (housed at PORTALS), consisting mainly of announcements of upcoming events, minutes of meetings, some discussion of issues
- 1/3/96 Donna Reed from the start tries to document on the Internet her knowledge base gained from developing local government websites for the use of new government agencies coming online and for use by other communities as well. Donna also found this a good way to organize her own thinking. See for example, Reed, Donna. Community Information System Project. Available: WWW: <http://www.multnomah.lib.or.us/cisp/>
- 1/4/96 Donna Reed hired to start working at MCL as Community Information System Program Specialist (just in time for the flood!)
- 1-3/96 RITNet provides extensive, and much heralded, non-glitzy, flood information, mirrored by Neil McBurnett at BoulderNet, which is maintained as long as the flood affects the region (and long after it is no longer mentioned on the nightly news). The flood occurs while MCL is receiving its new mainframe computer. RITNet learned how to respond to an emergency situation. RITNet's experience is used later as a prototype for the county emergency preparedness. A key lesson was that citizen's needs are indifferent to boundaries, they cross government jurisdiction.
- 1/10/96 Donna meets with County Communicators group -- people responsible for public dissemination of information within the county. In a few instances this group was helpful but for a variety of reasons (ignorance of the Internet, feeling that this would be a huge new burden put on them, no power, etc.) most did not help with bringing agencies on board.
- 1-6/96 RITNet Advisory Council at its monthly meetings spends six month period discussing the meaning of public access. As of 6/97 Donna still remains dissatisfied with the public access and interactive components of the web sites. But group consciously agreed to first build an infrastructure before tackling more interactive citizen involvement via the Internet.
- 1996 Donna Reed tries Harvest to index the web sites but finds, like the State Library, that Harvest requires someone knowledgeable in the software's intricacies (and those people kept leaving for other employment)
- 1996 Donna Reed starts a list for county web masters.
- 1/14/96 RITNet prototype available but not officially announced until March.

- 3/96 RITNet officially launched with announcement at the Portland City Club (Neil McBurnett instrumental in getting the City Club date), two of the four counties have Web sites, City of Portland and Metro sites under development.
- 4/96 Donna starts the County webmasters committee with webmasters from county agencies and elsewhere. This is largely an information sharing rather than policy group. This approach works initially, but over time, Donna Reed does not control who the webmasters are and what they do (enforcing standards becomes an issue), and it is unclear if communication of information presented at these meetings is being transferred from the webmaster to the appropriate person within the agency. For this reason, she begins, in June 1997, working with the Operating Council and County Policy Committee on Intranets and the Internet.
- 6/10/96 Multnomah County Toolbox of local contacts mounted.
- 6/16/96 Multnomah County graphics bank established to address the common look-and-feel issue (everyone can use the same logo pulled from the graphics bank). Available: WWW: <http://www.multnomah.lib.or.us/cisp/gifs.html>
- Early Summer
1996 City of Vancouver, WA web site launched.
- Summer
1996 Washington County web site launched.
- 7/15/96 Multnomah County Library, Youth Services Division and Multnomah County Health Department create the Reality Bytes portion of the OuterNet website containing health information for teenagers. Some conflict over what topics should be covered. Health Department offers hard hitting topics, librarians offer lightweight topics, resolution is to ask teen advisory board of the Health Department to decide. The teens come up with the best ideas. At present, each month the library youth services and health department alternate responsibility for what is put on the site for the month. Available: WWW: <http://www.multnomah.lib.or.us/lib/outer/rbytes/>
- 8/31/96 Multnomah County Health Department launches its health information page. Multnomah County Health Department. Public health care information. Available: WWW: <http://www.multnomah.lib.or.us/health/ed/>
- 11/1/96 Clark County's (Vancouver, WA) web site launched.
- Fall 1996 Clackamas County's web site launched (last of the surrounding counties). All four counties now have web sites available
- 11/96 The first time that the four counties election departments report election returns to RITNet. Previously Multnomah and Washington counties reported returns to RITNet for minor by-elections. These counties decide to help Clark and Clackamas counties to report their results to RITNet. RITNet sees its peak usage surrounding election day. For chart of usage during this period see: <http://www.multnomah.lib.or.us/~donnare/online97/pres/elect.html> RITNet covered on local TV, and all news media access the site.

- 11/96 Proposition 47 passes, a statewide "cut and cap" initiative that will severely affect library budgets.
- 2/97 RITNet takes over consumer health information component from a volunteer group of professionals.
- 2/12-19/97 Donna Reed produces her evaluation report requested by the Evaluation Consultant and made it available on the Internet <<http://www.multnomah.lib.or.us/~donnare/report/>>.
- May 1997 Environmental information category added to RITNet.
- 6/97 Donna Reed starts meeting regularly with the County Operating Council (Deputy Director level of county government) in a two week period Donna added three new agencies to the county web not previously willing to participate.
- Spring 1997 Donna Reed becomes a Member, Oregon Telecommunications Forum Council (OTFC), Community Development Team which made a recommendation to the governor and state legislature for a state community networking model which is awaiting action.
- Spring 1997 Donna Reed becomes a Member, Internet/Intranet Oversight Committee which is subsequently changed to the Internet Technologies sub-committee of the Information Technology Council (ITC).
- Spring 1997 Donna Reed becomes a Member, County Information Technology Council (ITC).
- 6/97 The County commission presently recommends, but does not mandate, that its agencies have web pages. Donna Reed believes this may change in the near future due to the rapid progress made by the City of Portland (where agency web pages are now mandated) which at first was behind the county but now is catching up fast.

Staff Development Activities

This sub-section summarizes efforts by MCL to obtain education and training for staff to better implement the grant objectives.

Donna received her M.I.S. during this period from Emporia State University's (Kansas) distance education program (as did Sue Jenkins at Driftwood Library, Lincoln City). She took two specifically relevant courses on information design as part of her Masters work at Emporia State. When Donna needs to learn a particular piece of software (e.g., PhotoShop, web editors, Windows 95) or technology she goes to local vendor contacts and has them train her in the software's use. If the product is brand new she tends to go to someone local whose software or technology skills she respects and "picks their brain." She relies heavily on the Powell's Technical Bookstore (one of the best in the country). She attended various professional association (ALA, PLA, ASIS) workshops (particularly on information and communication design aspects, remembering Edward Tufte's workshop) and attended national conferences on community information. Donna also used the Internet (and phone) heavily, identifying interesting projects around the country, and contacting that person directly.

One way of viewing most of what Donna Reed does is as staff development for county and regional governments connected with the integration of the Internet into government. When Donna first started, she offered classes on various levels of HTML. All HTML 101 class members finished by producing a web page. But Donna Reed stopped offering HTML classes when other sources such as the local colleges, started offering HTML courses. But Donna worries that these courses do not emphasize standards and people do not know how to read their own code because they are taught using an HTML editor only. Donna also noticed that if people do not use HTML right after the class they lose it. Also if agencies don't pay for the course, they don't value it.

Project Work Products

This sub-section lists and describes the major products, services, and other outcomes as a result of the grant:

Multnomah County website. Available: WWW: <http://www.multnomah.lib.or.us/>

Multnomah County graphics bank. (1996, June 12). Available: WWW: <http://www.multnomah.lib.or.us/cisp/gifs.html>

Multnomah County Health Department (MCHD) site. (1996, August 31). Available: WWW: <http://www.multnomah.lib.or.us/health/index.html>

Multnomah County Library. Available: WWW: <http://www.multnomah.lib.or.us/lib/>

Multnomah County Library, Youth Services Division and Multnomah County Health Department. (1996, July 15). Multnomah County Library YA Web Page: OuterNet, Reality Bytes. Available: WWW: <http://www.multnomah.lib.or.us/lib/outer/rbytes/>

A young adult WWW site containing consumer medical information.

Reed, Donna. Community Information System Project. Available: WWW: <http://www.multnomah.lib.or.us/cisp/>

Reed, Donna. Community information system projects: A presentation given to the Multnomah County Commissioners. Available: WWW: <http://www.multnomah.lib.or.us/~donnare/cispres/>

Reed, Donna. (1997). Community information system projects sponsored by Multnomah County Library. Portland, OR: Online Northwest 97. Handout. Available: WWW: <http://www.multnomah.lib.or.us/Donnare/online97/>

Reed, Donna. Community Information System Project: A toolbox for people working on RITNet and Multnomah County Web sites. Available: WWW: <http://www.multnomah.lib.or.us/cisp/>

Reed, Donna. (1995 June 18 to present). Multnomah County Library Web Server Statistics. Available: WWW: <http://www.multnomah.lib.or.us/usage/>

Reed, Donna. What is the Community Information System Project? Available: WWW: <http://www.multnomah.lib.or.us/cisp/cisp.html>

RITNet. Available: WWW: <http://www.region.portland.or.us/>

Consists of:

- A website for each County agency describing that agency and its work.
- Public information, such as pamphlets and educational materials, produced by County agencies
- Interactivity in various formats-- forms , "mailto" links, conferencing and opportunities for citizen involvement.
- Links to externally-created sites containing information of interest to those living in the county and to those wishing to visit or do business in the county.
- Interactive, continuously changing information, that is driven by customer needs.

Dissemination of Project Results

This sub-section identifies specific ways MCL disseminated project findings to the local, state, and national communities and the profession including publications, videos, press releases, presentations, external training sessions, etc.

Community Information System Project

Reed, Donna. Community Information System Project. Portland, OR: Multnomah County Library. Available: WWW: <http://www.multnomah.lib.or.us/cisp/>

Donna Reed maintains the above web page to assist those who need initial help in community information and web page creation. Included on the site are the following areas: About the Community Information System Project (CISP), A Toolbox for Multnomah County Web builders (Before you begin , Frequently asked questions (coming soon), Getting an account, Multnomah County Web Standards, Beginning HTML, Graphics 101, Multnomah County Graphics Bank and Related Sites), RITNet Toolbox and Neighborhood Associations links. Donna developed the site at first to aid local county and city governments who asked Donna for help. The principal being: you want to use the web, well use the web to obtain help. The site gets much wider use now.

Local, Regional, National Conferences

Donna Reed speaks at numerous local (including all of the surrounding county governments and all of the city governments in Multnomah county), regional, and national events on various aspects of providing local government information via the Internet. Often putting her presentations up on a web site, for example:

Reed, Donna. Community information system projects: A presentation given to the Multnomah County Commissioners. Available: WWW: <http://www.multnomah.lib.or.us/~donnare/cispres/>

Reed, Donna. (1997). Community information system projects sponsored by Multnomah County Library. Portland, OR: Online Northwest 97. Handout Available: WWW: <http://www.multnomah.lib.or.us/Donnare/online97/>

RITNet Listserv

PORTALS houses a listserv for RITNet members.

Evaluation Efforts

This section identifies specific ways MCL used to evaluate the project.

Donna evaluated web pages using interactive forms⁴ on each site soliciting feedback. For an example of a feedback form see:

Reed, Donna. We would like to hear from you: WWW feedback form. Available: WWW: <http://www.multnomah.lib.or.us/indform.html>

Questions asked included: Was service provided appropriate to your needs? Was the service easy to use? Was the information provided current? Useful (why)? Did you make use of any help desk services? Training? Was the help appropriate, useful? Overall suggestions to improve the service? There are about 10 feedback comments a day. Donna tries to respond within 24 hours. As the various county agencies take over managing their own information on the web site the feedback is directed to an appropriate person in each agency.

Donna also tried log analyses of the various web pages. While log analysis is not particularly accurate Donna finds log analysis useful for suggesting trends and has not yet written off its utility. For RITNet log analysis statistics see:

Reed, Donna. (1995 June 18 to present). Multnomah County Library Web Server Statistics. Available: WWW: <http://www.multnomah.lib.or.us/usage/>

The monthly RITNet Advisory Council (and supporting listserv) are important sources of evaluative information.

Donna's evaluation report for the HEA II-B grant was unique because of its availability on the Internet:

Reed, Donna. (1997, February 12). Hatfield Grant-- Community information module: A review. Available: WWW: <http://www.multnomah.lib.or.us/~donnare/report/>

This helped the Evaluation Consultant who could access the report while traveling. This method of publicly providing evaluations may have merit in other circumstances as well.

A principal form of evaluation for Donna is direct contact with various interest groups connected with county government -- even talking to people on the bus! Donna regularly meets with the North Portland Neighborhood Coalition, located in a low income area, to try to find meaningful ways that people with low or no budgets can participate on the web. One useful source is to talk with key service points within local governments to find out if the web sites have an impact in addition to finding out

⁴ The interactive forms used by RITnet were originally questions about specific parts of the page, whether the user got the information they requested, or simply if you have any comments click [here](#). The user would then e-mail RITNet using the mailto option described in the PORTALS section. More recently, RITNet uses simple CGI forms which can look more like a traditional survey, can be used at public terminals (like those in libraries), and do not require e-mail accounts.

the latest frequently asked questions. Another useful source is the local alternative and free newspapers for current hot topics.

Donna is actively involved in the standards setting process beginning with the standards committee of the RITNet Advisory Council. Donna regularly checks to see if agencies use the standards and once even temporarily removed an agency from the website due to violation of the standards.

Lessons Learned

This sub-section identifies significant lessons learned by MCL which may also be of interest to similar organizations in other settings.

Strategies for connecting a county to the Internet

Three useful approaches tried in parallel with synergistic outcomes worked to initially acquaint local governments to the Internet: opportunity/emergency, frequently asked questions at key service points, and approaches to individual agencies.

Donna started work with a baptism by water -- a flood emergency affecting the entire region. Donna began identifying needed information and information providers across the various governments. She acquired this information often via phone and fax, and then entered the information on to the county web page. The emergency situation enabled government agencies across jurisdictions to cooperate, particularly with the library, a perceived neutral player. The success of Donna's effort here (1) gave her a product to show the ignorant or skeptical (2) an entre into further collaboration with the agencies who had contributed to the flood emergency effort, and (3) word-of-mouth recognition when working with new agencies.

Donna also focused on identifying the information most needed/used by citizens. She mentions that the flood taught her "how to listen for what citizens needed and where to look for it." She did this by talking to the key services points within government: the information and referral unit, the reference desk of the public library, and receptionists and secretaries at the government agencies. Agencies saw the importance of getting out this key information any way possible -- even on the Internet! Internet users began to find the information they needed available on the Internet. Agencies saw their information on the Internet and began to get requests from people who had learned about the agency via the Internet. Suddenly the agency had a stake in what was on the Internet about them.

The third parallel strategy involved group and individual contacts with government agencies. Donna said the second thing the flood emergency taught her was how to approach agency officials. Donna addressed the county communicators group, technologists, deputy directors, and others. Donna also worked with individual agencies as interest in participation emerged.

Donna and now county government officials, select information sources using a number of criteria including: was the information needed by citizens (as determined by their requests to government service points); was the information available in digital if not HTML format, and could updated information be easily obtained.

When Donna started in January 1996 her approach was to solicit the information from the agencies and then key it on to the website using HTML coding. The agencies did not know about the Internet and much of their information was in paper-based format. Over the eighteen month period

this dramatically changed. Many agencies have their information now in digital format, and agencies are now responsible for coding and maintaining their own portions of their Internet presence. Another welcome change is the gradual shift from Donna seeking out information, to agencies coming to Donna with the information to be placed on the website, to agencies maintaining their own data on the website.

For Donna, the progression was from keying in paper based information from an agency, establishing a mechanism for regularly obtaining current (and new) information from an agency, obtaining the information in digital format, and finally getting an agency to manage its own portion of the government web page. On the other hand, for the user, the look-and-feel from the beginning is of a fully functioning county government on the Internet. This approach allows agencies with different learning curves, priorities, resources, and skills to move more at their own pace.

Proposing an Agency Website: Who Offers Assistance and Who You Talk to Matters

Who do you ask when you want to involve an agency with the Internet? Do you start with the receptionist and let them choose? Do you ask for the technology or systems unit? Do you start with the agency head, or somewhere else? Donna, in learning how to assist an agency with its Internet use tried all of these approaches with varying results:

- Receptionists and secretaries frequently know what the public considers the most important information that an agency produces -- because they are constantly asked for it.
- Donna was often handed off to the technology unit within an agency because "that is what the Internet has to do with, right?" The technology unit was useful for identifying someone within the agency who could do any HTML coding or electronic data transfer to the web site. But the technology unit did not know the information of value, could not guarantee the flow of an agency's information to RITNet, nor did it have the power to authorize an agency's participation on the web.
- The agency communicator's branch (public relations or marketing) often had the best presented least useful information the agency offered. The communicator's were often not technologically savvy and, as a result, did not readily grasp the significance of the Internet for their work.
- Agency directors were initially hard to reach and uninformed about the Internet.

Donna had her most recent successes addressing the agency deputy director level -- smart enough to know the Internet's utility, knowledgeable enough about the agency's products and services to prioritize their importance for presentation on the Internet, and powerful enough to make it happen within the agency.

Who you are (the role you play) and the agency you represent matters when you offer to provide assistance in utilizing the Internet. The library is seen as information neutral, that is, the library is interested in acquiring and presenting information an agency might have without adding a library spin to the data. This meant that agencies were more ready to talk to a librarian than others.

Steps to Establishing an Agency Website

Today, Donna would begin her contacts with an agency new to the web at the Deputy Director level. She would have that person organize a meeting of the people the deputy thought should be involved. Donna would suggest that department heads be at the meeting, possibly some clerical staff (if they are the ones answering the frequently asked questions), and a representative from the information services component. Donna stresses that it is important to have an information services person on board but that their role is to support not control the project. At the meeting, Donna would try to gain an understanding of how the agency supplies information to the public. This involves looking at information delivery, who does what informational task. The mechanism varies from agency to agency often around two approaches. One model is a department that supports internal customers -- county employees. Another model is a department that directly serves the public.

Donna then tries to put a model in place that fits in with how the agency already processes information. In that way the creation of information for a web page will fit right into existing practice. Moving the creation of the web page away from whomever originally creates the information within the agency can be a real problem. Often the person in charge of creating the information is in charge for a reason (not apparent to the outside consultant) and the (apparent) loss of control (even if it is copying exactly what the original person created) is resisted. Often one unit within a department is unaware of information being created in another unit, and the information unit in any department is regularly the last to know in the agency! Thus having every unit involved and in control using existing information processing patterns is the best approach. This is not to say that opportunities for re-engineering workflow are not possible. But one should be cautious in changing something not fully understood in the time available.

The model that Donna initially chooses for an agency will depend on whether or not she senses that the department (or key members in it) is intimidated by using the Internet or reluctant for a range of other reasons (e.g., fear of added workload, ignorance, etc.). If she senses resistance she will start with a simple task. She looks for obvious department information products, or a crisis line, or brochures. A simple place to start is to have one or more people send a fax, or more advanced, a disk of information one time, or better still on a regular basis, to Donna. Donna will then encode the information and put it on a web page. Donna will then return to the department to show the original information now on the web. The purpose is to get feedback, but also to make the web seem more familiar. People seeing work with which they are familiar in a new medium suddenly do not find the medium so strange. Later, as the department feels more comfortable with the Internet other tasks, including internal production of web content, become possible.

The model that Donna initially chooses for an agency also will depend on the type of support available within the agency. What inhouse expertise is available? Can that expertise be tapped? Sometimes there will be a person who knows HTML but should not have access to the information, or the person's salary ranking is too high or too low, or the person must cross some other organizational barrier to contribute what is needed. What expertise does the department that Donna can offer? If departmental expertise is available, a critical period in the process begins -- moving the agency to take control of its own web information.

A key point in the relationship is getting the agency to take control of its own web information. How did Donna encourage this process? Related challenges are: How does the county government control for quality and encourage a common look-and-feel yet not dampen enthusiasm? To get a department web site up Donna will go to great lengths (spending several weeks eight hours a day on

site)! Donna will often print out various standards and bring them to a department to work with the departmental expert and constantly refer to them. Donna will offer to create a template page to start if asked (the CISP site below has some templates already on it). But she is not shy about directing people to other experts if appropriate. Several elements are key: Donna's approachability, her active presence on the Internet locally and in person around local governments including the willingness to take as long as it takes on site at key moments in the process, and the web-based resources Donna makes available for new government agencies wanting to establish their agency's Internet presence.

Reed, Donna. Community Information System Project. Portland, OR: Multnomah County Library.
Available: WWW: <http://www.multnomah.lib.or.us/cisp/>

This site provides basic introductions to the Internet tools a web site builder would need, an account to get started, an explanation of key standards and why they matter, a graphics bank containing frequently used county symbols (addressing the common look-and-feel question), and a list of key contacts who could be called on for help. Simple, but effective, not only within Multnomah County but at the municipal and regional levels of government as well. After a web page is launched Donna may help with organization and she regularly checks to see if the page is being maintained (and if not, why not).

From the beginning, Donna, had as an end goal, the provision of department services over the Internet. A service, in Donna's terms, is some type of interactive exchange on the Internet: a forms based request by citizens and response by an agency (or vice versa), or some type of database searching. Donna notes that the way to find out about the services is to find out who is creating information about the services and following the information about the service around the department. The delivery of a service usually involves the need for a more technical person (e.g., CGI programmer, database person). This is where the library is now - the state of the art. The library hopes to be offering database services on a regular basis by the end of the year.

Services, like database access, need to involve more people higher up in the agency before being released to the public. Departments are fearful that citizens will use the data available in a database to embarrass the agency. Several instances of this occurred already making a cautious department even more cautious. So every possible use of the data and every use of the data matched with data from other sources must be considered. This is a slow process at best. Further, there is the likely possibility of citizens mis-interpreting information contained within the databases. The possibility of mis-interpretation puts the burden on government public information personnel to explain increasingly complex information problems before the local newspaper reduces the issue to a nightmare.

Glitzy, Bureaucratically Correct, or Useful Information Content

Providing information on the flood taught Donna several lessons including:

- There is a difference between a website designed for immediate impact and "glitzy" appeal and a site which seeks to convey information which, in this case, flood victims and local government officials need to assist in the recovery process. Related is the idea that the glitzy sites lose interest when the topic is no longer newsworthy, but the need for emergency information may persist for months after the initial disaster.

- Citizens needs for government information, particularly in a crisis, cross government boundaries. Indeed, citizens neither know or care whether the information they need is city, county, state or federal government information. They need the information and need it now! This argues in Donna's mind for an information service in which governmental jurisdiction is transparent to the users.

Donna further learned about the importance of the clear, orderly presentation of information when working on making her web sites useful to those who were blind. What looked excellent with great graphics and layout to the sighted appeared disorderly to the visually impaired.

When comparing her sites to others Donna learned the importance of accuracy in the titles and descriptions of sources. Other sites frequently mis-label or mis-represent Donna's web sites. For example, mis-naming the Multnomah County web site as the Multnomah County Library web site. The need for accuracy by constantly checking links also matters to users. There are regular conflicts regarding authority and origin of information on the web. Too often, a web site will give the impression that it creates all of the information presented at the site when much of the site merely contains links to information sources created by others: a form of web plagiarism perhaps.

In summary glitzy is nice, Donna will be working with a graphic designer this summer to re-design several of her web pages. However, there is no substitute for accurate, useful information that is well organized and presented. This also pointed up to Donna the numerous problems created by well meaning people who were not trained in basic library/information skills.

Bonus: Making the Unexpected Inter-Governmental Connections

Donna regularly discovers links between government agencies that the government agencies themselves do not know. For example, in preparation for making a domestic violence pamphlet available on the web she learned that the Children and Family Department had a Domestic Violence Unit, the Health Department had a Domestic Violence Unit, the District Attorney's office has a Domestic Violence program and the City of Portland.... Donna forged both virtual and real links.

Internet Services are for the Elite Few: Why Should Agencies Bother and Citizens Fund?

Today not everyone has an Internet connection despite dramatic growth in use. There is great concern that the economic and social have-nots of the present will not be connected to the Internet so as to have an equal or greater chance at a better future. Those with these concerns see the Internet as a toy for the elite few rather than able to contribute to the benefit of the many, in particular the have-nots. If this is the case, why should agencies bother to connect to the Internet and provide information and services via the Internet? Donna Reed's experience suggested two potential reasons why delivery of information and services via the Internet should matter to county government agencies. First, Donna's experience with the flood emergency eighteen months ago taught her that those already connected to the Internet include community opinion leaders, county government officials, public information officers, libraries, key community organizations, the media, and other disseminators of information. Donna obtained information vital to the flood emergency from the Internet, and presented vital information to the above key community members which made a difference. Second, Donna, who considers herself knowledgeable about who uses the network for what, says that she is constantly surprised who in actuality have access to and really use the Internet. It may be that Internet use is not being determined by economic and social advantage alone. Today there is a dramatic increase in the number of individual users and in public provision of Internet services in the METRO region.

Next Steps

This sub-section suggests next steps to be taken as this grant period comes to an end and to advance the project's objectives after the funding period. Donna Reed identified the following next steps during the interviews with the Onsite Evaluator:

- **Add new information products and services to web sites:** Already underway are plans for a professional graphic artist to re-designing several of the sites, there will be new sections on community health, the environment, the non-profit sector, and an emergency preparedness site on RITNet sponsored by a group of regional governments. Planned are more interactive services including citizen access to departmental databases, the addition of maps to web pages, and plans for a global index of county government web sites.
- **Embed electronic networking in local governments:** There are active discussions among local governments about the benefits of mutual web site development. For example, there are discussions between Multnomah County and City of Portland on shared, web based, information and referral. Government intranets will take hold in the next year and, as a result, individual departments will have increased incentive to digitize and subsequently network information. The process of embedding electronic networking within the county government is an active focus of the Internet Technology Council. Issues being considered include development of departmental technology plans, modification of job descriptions to reflect changes in roles brought about by the Internet (and other information technologies), the relationship and communication between county and departmental information services units, hiring and reward of personnel with newly valued information technology skills, and union consequences.
- **Agency and government level policy issues will receive intense scrutiny:** Intranets, Internets, Extranets; citizen interactive access to core agency information (with services not far behind) all force senior management involvement. Policy questions include: Who owns government information? Who, under what conditions, should have access to government information? The impact of telecommuting of government and citizens? Should certain agency information now be required to be on the Internet (e.g., organizational structure with description and contact information) and maintained up to date? What should be the relationship between the county information services department, individual department information services units, the individual creator/producers of information, and the users of that information? For example, in the area of web page standards?
- **Public access at the neighborhood level:** Many of the original RITNet members felt that the Internet represented an opportunity to improve public access to the least served. Has it? A continued effort will be made to extend the public Internet access to neighborhood coalition organizations.
- **RitNet market strategy:** Donna Reed believes the RITNet story needs better telling, she suggests there is a need for a market strategy for RITNet.

In addition, planning is underway for a fall governments and the net conference to be held at METRO.

Recommendations

The evaluators offer the following recommendations based on the onsite visit and subsequent discussions.

The Multnomah County Library portion of the HEA II-B grant was a clear success with all grant objectives met or exceeded. The library is clearly a valued player in city, county, and regional government use of the Internet to provide government information and services to citizens. RITNet process and products can serve as a useful model for other local governments seeking to integrate the Internet into government activities. Several recommendations occur to the evaluators:

- **Disburse monies committed to MCL:** Christina Dunn, Director, Department of Education Discretionary Programs, Library Programs Office in a letter received by PORTALS on March 27, 1997, responding to a March 25, 1997 letter from Howard McGinn, then PORTALS Executive Director, noted: "You may grant funds to support the Multnomah County Library's RITNET; the \$50,000 cited seems reasonable for this activity." To date, MCL has not received these funds. The evaluators recommend this money be promptly allocated to MCL.
- **Get the word out:** There is no local reward for documenting the County and RITNet experience for use by other libraries and local governments. Yet the need and utility of Multnomah County's experience within the state, the region, and nation is great. The evaluators urge the participants in this portion of the grant to get their message out! Focus on capturing the voices of experience who can discuss not only what was done (and what was not) but why? It might be helpful for the grant principals to visit other settings to gain perspective on how much they have to offer the professions involved. The evaluators applaud Donna Reed's (and no doubt others) participation in regional and state wide committees and the American Library Association.
- **Address anew fundamental value questions regarding electronic networking's worth to governments and citizens:** The RITNet Advisory Council began with strong concerns about public access but decided to build infrastructure first. The Internet Technology Council exists and has begun to ask the tough policy questions connected with embedding electronic networking in local government. There are active discussions regarding partnering between county and city governments in the provision of information and services via the Internet. To the outside evaluators, these events suggests that a period of time will be needed to re-assess and re-address fundamental value questions regarding electronic networking's worth to governments and citizens. This re-assessment is both necessary and worthwhile because there is a critical mass of experienced government personnel that can begin to derive meaningful answers. This was not the case eighteen months ago when the Internet's potential was new to all.

The evaluators suggest that it is time to bring together experienced government personnel to re-ask such questions as: Can the Internet increase citizen public access and interaction with governments? Is this a good thing -- for citizens, for governments? What exactly does public access mean in a digital era? Has the Internet any value for poor, urban, neighborhoods? Have these neighborhoods been forgotten? Is there a list of basic information products and services that all governments can and ought to be offering their citizens via the Internet? Why? In sum, all of the issues previously deferred to build infrastructure and to gain experience, will be back. These issues deserve fresh attention, not

so much because they will be solved, but to aid in the consolidation of grant participants learning to date, and because the answers derived now will be different and better for the communities served.

- **Establish relationships with additional key user groups:** MCL's approaches to getting agencies on the web include taking advantage of opportunity/emergency (e.g., flood, election), or subject/information producer interest (e.g., health information), or responding to early-adopter agencies. An alternative approach might be to think of a group of users with which local government needs to have a special relationship. Then in dialog with that group of users, create a networked service which encourages the relationship needed. An additional criterion would be whether, or what type of network connection does the targeted group of users have. Several groups come to mind. Schools and school children: What does county government want every elementary school child to know? What does every elementary school child want to know about county government? If nothing occurs to you find a couple of creative elementary school teachers to come up with a unit on You and your County! Nursing homes and Senior centers: In what ways do (could) Seniors and county government interact say in health, benefits, taxes? This might mean getting away from sources of information, getting away from government services, and talking to groups of users in their setting. But it might be an another way of learning how best citizens and governments can electronically network together.
- **Continue the process of embedding electronic networking in government:** As in any project, the last mile is the toughest (and least gratifying). After a wonderful beginning, it is time to move to the endgame with the same patient enthusiasm as brought to the start.
- **Explore the services side of the picture:** MCL's goal from the start was the provision of information and networked services. MCL experience helps identify the issues and difficulties involved both technical, economic, and social/political. The next logical step is to gain experience with electronic service delivery as you gained experience with electronic information delivery. As a start, the possibilities and consequences of two-way, non-financial, government-citizen exchange wait to be explored.

In an experimental area, such as the one chosen by Multnomah County Library (and partners), the library's success in its project activities is outstanding. The library should be congratulated for their efforts and successes.

V. Oregon Historical Society (OHS)

This section of the report examines the Oregon Historical Society's programmatic component of the HEA II-B grant including: program objectives using language from the original grant proposal and outcomes to date in brief, the evaluator's activities in order to compile this section of the report, a chronological summary of key events and accomplishments, staff development activities, project work products, efforts to disseminate project results, Oregon Historical Society's evaluation efforts, lessons learned, next steps, and the evaluators' recommendations.

Project Objectives and Outcomes in Brief

This sub-section identifies initial project objectives (using text from the grant proposal) for the OHS portion of the HEA II-B grant and summarizes progress to date.

Oregon Historical Society will make portions of its collection of Oregon historical materials available by conversion to digital form, initial organization, and provision of access to Oregon citizens via the Internet. Specifically, OHS will:

- **Produce a series of electronic educational packages for grades 4-14:** the Oregon State Archives was the sub-contractor for this effort. Packages to be available on the Internet include text of historical documents with interpretive notes of appropriate reading level.

There were twenty three items in the Echoes of Oregon History set as of May 15th 1997. See Oregon State Archives. Echoes of Oregon history, 1837-1859. Available: WWW: <http://arcweb.sos.or.gov/echoes/defaultechoes.html>

- **Digital selected items from OHS collections:** Digitize 10,000 historical items from the OHS collection including 2500 manuscript pages, 300 maps (in image not in GIS format), 2500 photographs, 100 oral histories (and sound recordings) of central government figures (e.g., state legislators), and 5,000 items from the artifact collection. Digitizing process includes selection of materials from existing collections, production of slides, conversion to Photo CD, and then conversion to hard disk storage.

OHS made substantial progress in this area, for further details see the work products section below.

- **Digitize and expand finding aids to OHS collections:** OHS planned to catalog the individual manuscript page digitized and the parent collection from which the page comes, digitized maps, the digitized photo and its parent collection, the oral histories chosen for digitalization and add descriptive information about the artifacts digitized. In addition OHS planned to add local serial holdings data to OCLC (and OHS's Horizon catalog).

Recently, as a result of the Berkeley Finding Aid Project (and others) OHS also planned to prepare, update, or convert to Access databases finding aids (called variously finding aids, indexes, databases, inventories) for map collections, oral histories, manuscripts, images, and artifacts. In general, these databases link descriptive information about the item in the OHS collection, the location of the item, and the location of the digital representation

of the item where available. OHS plans to index the catalog and all of digital finding aids into one (meta) database accessible to the Internet using Inquiry software.

OHS made substantial progress in the creation and conversion of finding aids, for further details see the work products section below. The Inquiry software to create the meta index is about to be purchased and data structures are ready for it. For further information on the Inquiry software see: <<http://hobart.cs.umass.edu/public.html>>.

- **Website Development, Establish a virtual OHS on the Internet:** Make above digitized items including finding aids, the finding aids meta-index, digital representations of selected items from the OHS collection and the State Archives electronic education packages available via a website on the Internet.

OHS introduced a website which includes digital representations of the collections at OHS, finding aids, and other information about OHS. Available: WWW
<http://www.ohs.org/>

- **Conduct related user education and staff development:** OHS as an institution moved from a paper-based environment to a digital environment in part as the result of this grant. OHS staff and users needed training to take advantage of the new environment.

OHS staff attended a range of staff development activities connected with the grant. OHS has not begun user education activities related to the website or grant yet.

- **Conduct continuous evaluation of project and user feedback to it:** Evaluation will include collection of benchmark data on portions of collection digitized, monitoring of staff hours spent on the project, and user-based evaluation of resulting project products and services.

OHS evaluation efforts are considerable, ongoing, and well done. OHS should assess the users of its website, their needs, and their interest/ability to contribute to OHS.

These activities will make OHS and its collection a much stronger and accessible presence within the state and nationally. An OHS patron will not always need to be physically present to use finding aids and the collection. OHS will increase its ability to organize and present its collections in novel and imaginative ways. These grant activities are one element in OHS's strategic plan presented in Appendix H-1, "Oregon Historical Society: Strategies through 2005." Appendix H-2 presents the OHS organizational chart.

Summary of Evaluator's Onsite Activities

The Onsite Evaluator examined existing available documentation on the OHS project including the original grant proposal and the evaluation report filed by Todd Welch (1997, January 31). The Onsite Evaluator reviewed OSL website, for recommendations see Appendix P-1.

On June 5, 1997 the Onsite Evaluator met with the majority of OHS staff involved with the project in a group introduction and discussion. Then spent the rest of the day meeting with Elizabeth Winroth, Maps Librarian, Laura Ayling, Map cataloger, Jim Labosier, Maps Assistant, and Mandy York, Maps and Photographs Cataloger; Barbara Abrams, Project Navigator and Deputy Director for Operations and Programs; and, Steve Hallberg, chief cataloger.

On June 10, 1997 the Onsite Evaluator spent the day at OHS meeting with Kris White, Director of Archival Collections; then Marsha Williams, Director of Museum Collections; then Chris Bostic, MIS Director and Communications Manager and Dwight Patterson, MIS Senior Engineer ; then James Strassmaier, Oral Historian; then Sue Seyl, Director of Image Collections, Richard Yost, Imaging Technician, Mandy York, maps and photographs cataloger, Elizabeth Winroth, Maps Librarian, and Mikki Tint, Assistant Photographs Librarian, Evan Schneider, Photographer all from the Photography and Image Department.

On June 11, 1997 the Onsite Evaluator conducted an extended meeting with Todd Welch, Project Archivist and met with Chet Orloff the Oregon Historical Society Executive Director.

On June 12, 1997 the Onsite Evaluator examined minutes from the OHS Web Task Force and other documents connected with the project.

Due to scheduling difficulties the Onsite Evaluator did not meet the person directly responsible for development of the "Echoes of Oregon History "series at the State Archives. The Onsite Evaluator did meet with Roy C. Turnbaugh, the State Archivist, on June 6, 1997 in Salem, Oregon however.

Chronological Summary of Key Events and Accomplishments

Summarized, in chronological fashion below, are key activities, milestones, outcomes, and accomplishments including principal work products to date given the project's objectives. Omitted are regular, ongoing, phone conversations or meetings at various conferences between the Evaluation Consultant and PORTALS staff or project participants.

- | | |
|---------|--|
| 1975 | Photography Department receives North West Area Foundation grant to reorganize the photography collection, this marks the beginning of computer use in the department. |
| 1979 | Photography Department receives NEA grant for Cronise collection cataloging, exhibition, and book, involved computer use for cataloging |
| 1979 | Photography Department receives NEA grant for data entry |
| 1984-86 | Photography Department receives NHPRC grant to complete implementation of Pre-MARC computer cataloging scheme for photographs using a Wang VS80 |
| 1995 | Neighborhood Windows project for Portland exhibit provides Photography Department with good experience with imaging. |
| 1-9/95 | OHS prepares HEA II-B grant proposal. Grant team includes John Mead, Kris White, and Sue Seyl. |
| 9/95 | OHS, using funds from the Murdoch Foundation, makes public access Horizon catalog available. |
| 10/1/95 | HEA II-B awarded to PORTALS, OHS estimates it takes six months for PORTALS, OHS, and the Department of Education to agree on terms of reporting mechanisms, financial disbursements, contractual obligations, and scope of work. |

- 10/95 Argus artifact database contains slightly over 20,000 artifact descriptions at the beginning of the grant period.
- 10/95 Todd Welch, as Secretary/Treasurer of the Northwest Archivists, creates their web page. At the same time he prototypes an OHS web page.
- 11/1/95 Charles McClure, Evaluation Consultant, meets grant principals in Portland.
- 11/30/95 RFP released for consultant, responses due by 12/20/95
- 11/95 Todd Welch demonstrates prototype OHS web page to Sue Seyl and Chris Bostic
- 12/19/95 Charles McClure, evaluation consultant conducts conference call with grant principals.
- 12/95-
1/15/96 Began telephoning consultant candidates asking them specific questions OHS needed answers to at that point in time. This turned out to be a useful strategy for narrowing the field.
- 12/26/95 OHS, PORTALS, and Department of Education sign contract back dated to 12/1/96 to begin the project (Chris Bostic and Todd Welch negotiate for OHS). Then the federal government shut down. Discussions begin internally regarding how much money is available, how money would be allocated for staff, supervision, technology, software, training, and consultants. Contract required that OHS hire a consultant to help with the project (OHS eventually hires two beginning 1/30/96). This was viewed as a good idea by OHS as they felt they "were in over their heads."
- 12/95
to date John Mead, Director of Reference and Research Collections, begins biweekly collection of benchmark data (synchronized with pay periods) on portions of collection digitized
- 1/96 OHS continues search for consultants, find no one person that suits but two, Beth Sandore and James R. Blackaby together, have what they need.
- 1/96 OHS holds an all staff computer conference.
- 1/96 OHS concludes that a Gopher site will not do for its digitized items, begins to consider WWW.
- 1/30/96 Beth Sandore and James R. Blackaby hired as consultants.
- 2/96 Purchase of microcomputers associated with the project.
- 2-3/96 OHS employee Internet access begins.
- 2/21/96 Todd Welch demonstrates mock up of OHS web page.
- 3/5/96 OHS staff conference on automated collection management in the Madison room, the focus is on the HEA II-B grant 3-8 PM

- 3/5/96 Web Site Task Force formed by Executive Director, Chet Orloff around same time as consultants visit to plan for incorporation resources from all OHS departments on the website. See Todd Welch's diagram of future website plans, Appendix H-3. Task Force members include department heads: Sue Seyl, Chris Bostic, John Mead, Marsha Williams, Kris White, and Todd Welch.

The first charge to the committee was should there be a website? This was a non-issue for those working on the grant! But the charge forced those in favor of a website to focus their arguments and bring the rest of the organization up to speed.

Later issues were what would the website do, what content should be on it, shifting roles of staff as result of grant, and as a place to address other related issues. The group decided to focus on policies, procedures, and education of users later. The group started with weekly meetings and after the website became available shifted to bi-weekly meetings.

- 3/14/96 Initial visit by consultants Beth Sandore and James R. Blackaby. The Inquiry search engine in use at the Holocaust Museum by Blackaby demonstrated for the first time. There was early agreement that the Center for Intelligent Information Retrieval (CIIR), now Sovereign Hill Software, Inquiry search engine (Available: WWW: <http://hobart.cs.umass.edu/public.html>) was the best way to bring together the disparate OHS finding aids and catalogs for web access. Todd Welch began work on Inquiry data structures and consultants try OHS test databases using Inquiry. Both consultants mention Photo-CDs as a storage option.
- 3/30/96 Beta test creating slides of various OHS materials sent out to be processed.
- 2-3/96 Flatbed scanner purchased in February and scanning of images, in particular maps, tried through March but OHS dissatisfied with quality. The notion of just scanning in the images is painfully laid to rest. If OHS could scan items successfully (with high enough quality and lowered use of staff time) then there is less need for multiple intermediate collections (e.g., slide, Photo CD collections).
- 3/96 OHS begins to consider consequences of making representations of the photograph collection available on the website. for example, OHS makes \$97,000 annually in photograph reproduction sales, can the same revenue be obtained using the web? Can the photographs be secured from theft or unauthorized use? Images take up a lot of memory storage and a long time to download. Therefore, thought is given to using smaller, lower quality digital representations which would reduce mis-use and loss of photo sales. OHS drops hope of using digital images to preserve its collections. OHS also drops notion of having a huge collection digitally available. OHS begins to consider using the created digital images as largely advertisements for the OHS collections.
- 4/20/96 John Mead, Director of Reference and Research Collections, imports serial records and begins update of local serial holdings to OCLC, the task includes an issue-by-issue inventory.
- 5/2/96 Visit by consultants Beth Sandore and James R. Blackaby. Learn that existing software used by OHS for image manipulation is not adequate, need Photo Shop.

- 5/96 OHS Department of Education committee formed. Generally, meetings are monthly.
- 5/96 The initial draft of the OHS website was developed and demonstrated to the OHS Board of Directors.
- 6/96 Beta test of Photo CD, consisting of 33 items from each collection, produced by Lazer Quick to discover practicalities involved in digitizing the range of material to be done for the grant.

In the grant proposal OHS originally hoped that CD could be used for both preservation (images would be archival quality) and for access via the Internet. With the beta test OHS realized that the quality was high but neither magnetic tape (too expensive and volatile) or Photo-CD would be good enough for preservation. This decision in turn meant requiring the additional step of making archival quality slides as the preservation copy. OHS's conclusions were similar to the RLG Commission on Preservation and Access report <<http://palimpsest.stanford.edu/cpa/reports>> issued at around the same time. OHS's focus shifts to digitalization as a tool to provide greater access to their collections and for education, not preservation.

Beta test forces realization that it takes a long time to prepare a digital representation.

Beta test forces realization of the need for a change in workflow. Selection and cataloging can remain within the individual collection units, but the imaging itself, no matter the collection, should all go through the Imaging Technician.

- 6/96 Purchase of Sun Sparc20 from Thurber Technologies
- 6/96 Jaz drive purchased as partial solution to memory storage problem.
- 6/96 Serials librarian hired and entering of local serials holding begins in earnest.
- 6-7/96 Initial selection of maps for digitizing begun by Maps Librarian Elizabeth Winroth.
- 6/96-2/97 Full, mock, non-public, OHS WWW page housed temporarily at PORTALS till OHS equipment installed. Available: WWW: <http://www.portals.org/~chrisb/> (may soon be removed 6/97). This web site had 100 images from the beta test mounted as well. Received a lot of good feedback including from the PORTALS Executive Director and the Council of Librarians. OHS is the last PORTALS member to mount a web site.
- ?/96 Image file naming conventions standardized.
- 6/12/96 Visit by consultants Beth Sandore and James R. Blackaby.
- 6/25/96 Mary Ann Gernegliaro, an assistant to the Director of MIS, appointed Project Navigator. She lacks the administrative clout to be effective and is replaced by Barbara Abrams.

Summer/96 Planning underway for OHS staff reorganization to take place in the fall.

Summer/96 Intensive selection of maps, photographs, and manuscripts begun.

Summer/96 Todd Welch has three interns, uses them to test ideas and work out solutions to problems such as how to select manuscript pages to be digitized and determine hours necessary to do item level cataloging of digitized images. Todd learned he would need to pare down his catalog descriptions if he ever wanted to finish the project. Discussions with the consultant Beth Sandore also helped Todd to re-think his ideas on the specificity of cataloging need for digitized items.

7/96 Search for Maps cataloger begun.

7/96 Museum Artifacts Department begins automation of descriptive information of 5000 items to be digitized. A prior grant automated 35,000 records and converted 28,000 black and white images to Photo CDs.

7/96 First slides of manuscript pages created. One consequence was Kris White realized they selected too much material given the large amount of staff time and storage requirements involved.

7-12/96 During this period came the realization in the manuscripts area that while digital representations were adequate in terms of quality they were not "exciting." Further the issues of time to process, storage, and expense begin to penetrate everyone's thinking. As a result, emphasis shifts from a digital representation of the item itself to production of digital finding aids.

8/96 Sun Sparc20 installed by Thurber Technologies, also purchased firewall software and installed it at the same time. Thurber provides ongoing system maintenance and consulting and designed the OHS web page as well.

8/96 Todd Welch attends Society of American Archivists, San Diego, CA and an Introduction to SGML workshop. Comes back ready to use the Inquiry software but the website not yet up.

8/20/96 OHS beta web site using PORTALS server released Available: WWW: <http://www.portals.org/~chrisb/> Todd Welch spends 40% of his time on website development from 9/96-11/96 (when OHS annual meeting held) including deciding what should be on the page, locating the information or image needed in the correct format and preparing it, and hiring an outside company to do the web production. Progress, in Todd Welch's view, was slow.

9/3/96 OHS staff reorganization goes into effect due in part to the impact of the grant on OHS practice. Appointment of Barbara Abrams as Project Navigator official (had been Director of the Museums Department). All four collections departments (be they library or museum) placed under one administrator.

9/16/96 Map cataloger, Laura Ayling hired. Cataloging on worksheets using MARC standards and entering records into OCLC for transfer to the OHS OPAC begins. To give an idea of the time involved to catalog a map, the Map cataloger entered 23 records in 1/97, 30 in 2/97. A good, full-time, map cataloger, on average might originally catalog 900 maps a year.

- 9/20/96 Another beta test of Photo CDs produced. Included 19 scanned BxW, color, and manuscript maps less than 11x17" in size as well as other collections materials.
- 9/96 OHS judges the existing photographic studio too small to work with large items to be digitized. So OHS develops a plan for conversion of Beaver House storage area to a photo lab to photograph images, for later digitalization. Innovative work done to prepare maps.
- 9/96 The Coop Map Project begins funded by a PORTALS HEA II-B grant (which phase is unclear) with participation by OHS, MCL, PSU, and Reed College. Project plans to add 1000 partial catalog records (stripped down MARC) of selected maps on a separate Access based database searchable by Inquiry. Elizabeth Winroth begins search for Maps Assistant (hired in November).
- 9/23-25/96 Visit by consultants Beth Sandore and James R. Blackaby.
- 9/22/96 Method devised for assigning unique ID number to items to be digitized so that they can be tracked and ultimately stored in digital form on a hard disk and the same ID number used by a user to obtain a copy of the original (where that is possible). See Appendix H-4.
- 10-12/96 Preparation and testing of photography workspace at Beaver House.
- 11/96 Decision made to hire Thurber Technologies to develop the OHS website. Thurber did prior work for OHS, was local, new the C code necessary, and OHS Director wanted site to be graphically impressive. OHS would need Thurber's help with Inquiry installation as well.
- 11/7/96 Chief Photographer and Imaging Technician test feasibility and efficiency of Beaver Hall studio space for image capture. First attempt to make slides of maps made.
- 11/1/96 Jim Labosier, Maps Assistant hired as part of the Coop Maps Project.
- 12/96 Maps Department completes selection process of maps to be digitized selecting 310 maps from a review of 668 collections totally approximately 20,000 maps. Selection criteria includes historical significance, geographic coverage, quality of cartography, and copyright restrictions.
- 12/96 Photography Department begins conversion of photograph bibliographic records from the WANG system to MARC format on OCLC for use on the Horizon OPAC. The Lamb Foundation pays for the conversion. Catalogers process and cleanup 300 records of individual photographs (Mikki Tint) and 300 records of organized lots (Elizabeth Winroth) at a time.
- 12/30/96 New Beaver House storage area photo studio complete.
- 1/97 Photography Department begins automation of the digitized photographs accompanying organized lot inventories
- 1/97 Photography Department begins preparation of brief descriptive captions for digitized photographs and adds them to cataloged record?

- 1/97 Adobe Photo Shop installed and the Image Technician begins manipulation of digitized images (gamma and color correction and cropping).
- 1/24/97 Chuck McClure, Evaluation Consultant, makes an onsite visit. Requests preparation of an evaluation report by OHS. OHS finds the evaluation report writing useful and a timely way to assess what they learned and where they are.
- 1/31/97 Welch, Todd. (1997, January). Progress Report on Oregon Historical Society portion of the U.S. Department of Education, Citizen access to government and other information project. (Submitted to PORTALS and Dr. Charles R. McClure, Coordinator of Project Evaluation).
- 1/97 to present Major impact from the grant during this period is the development of the website, in particular planning how to effectively present OHS information.
- 1/97 Manuscript Department SGML codes 25 finding aids for testing with the Inquiry search engine.
- 1/97 A Nikon slide scanner purchased.
- 1/97 OHS sends slides of two maps to Lazer Quick to be made into a Photo CD. Test considered a failure because result is not detailed enough.
- 1/97 Cataloging of maps speeds up with the addition of the maps cataloger. At this point, worksheets for 111 maps chosen for digitalization are complete.
- 2/97 Test OHS Web page becomes publicly available: WWW: <http://www.ohs.org/> The collections departments completed their portions in November but other OHS departments were much slower. The Web Task Force agreed that everyone must be ready before the page was publicly released.
- Winter 1997 Conversion by Ameritech of WANG system bibliographic records of the photography collection to MARC completed. Editing of the collection-level and item-level bibliographic records is on-going.
- 2/27/97 Next attempt at creating slide images from maps. Slides of 40 maps made during January and February. OHS discovers need to resolve uneven lighting, to insure the full coverage of the map, and to resolve proper exposure issues. Started using two cameras to cover the entire space of the map without moving the map (changing lighting and alignment). The magnetic wall solution for photographing maps developed.
- 3-4/97 Richard Yost, while converting Photo CD images to hard disk storage, exhausts OHS storage capacity. A multi-gigabyte drive is added.
- 3-8/97 Production of manuscript finding aids aided by four practicum students acquired via a course taught at Portland State University in Archival Administration.

- 3/16-19/97 Museums on the Web conference in Los Angeles attended by Sue Seyl, Barbara Abrams, Marsha Williams and Todd Welch.
- 3/26/97 Construction of OHS website's Kids page begins, not yet publicly available.
- Spring 1997 Todd Welch creates a template in Microsoft Access for photographic image descriptions. Fields include: image file name, CD code and image identifier (a standardized naming convention allows path access to file on hard disk) , descriptive title (including date of photograph), and organized lot number.
- 4/97 Selection of photographs is complete.
- 5/97 Museum Artifact Department begins reading artifact images on Photo CD into hard disk memory, by 6/15/97 have 600 images processed. Process not without pitfalls, process takes a day or two per CD, one CD had to be read and cropped three times.
- 4/21/97 Dwight Patterson, MIS Senior Engineer, is hired.
- 5/97 Johnyne Wascavage, Serials Assistant hired, will assist with addition of local serial holdings project (funded under next phase of the grant).
- 6/97 SGML viewer, Panorama Pro from SoftQuad purchased (a free viewer is also available as a plug in). For further information see: <http://www.softquad.com/products/panorama/pan-free.htm>
- 6/10/97 Television station KGW, channel 8, does a short feature on the OHS grant project and web page.
- 6/97 An uninterruptable power supply purchased for Sun Sparc20 as well.
- 7/97 Contract signed to use Inquiry search engine.
- 7/31/97 Argus database contains 47,604 artifact descriptions compared with slightly over 20,000 artifact descriptions at the beginning of the grant period.
- 8/97 Ameritech loads WebPac software making it possible to access the OHS Horizon catalog from the website.

Staff Development Activities

This sub-section summarizes efforts by grant participants to obtain education and training for staff to better implement the grant objectives. OHS was the most active of the grant participants in the pursuit of staff development activities, a sample of their activities includes:

Date	Activity
11/1/95	Charles McClure, Evaluation Consultant, meets grant principals in Portland.
12/19/95	Charles McClure, Evaluation Consultant conducts conference call with grant principals.

- 1/96 All staff computer conference at OHS
- 3/5/96 OHS staff conference on automated collection management in the Madison room, the focus is on the HEA II-B grant 3-8 PM
- 3/14/96 Initial visit by consultants Beth Sandore and James R. Blackaby
- 5/2/96 Visit by consultants Beth Sandore and James R. Blackaby
- 6/12/96 Visit by consultants Beth Sandore and James R. Blackaby
- Summer 1996 Todd Welch attends "Automating Finding Aids" workshop of the Society of American Archivists in Tempe, AZ.
- 8/96 Todd Welch attends Society of American Archivists, San Diego, CA attends two day SGML workshop which included construction of a DTD.
- 9/23-25/96 Visit by consultants Beth Sandore and James R. Blackaby
- 10/96 Todd Welch learns about Encoded Archival Description (EAD) tag library and further information about the Berkeley Finding Aids Project. For further information see Daniel Pitti's (1993 to present) progress reports, Hensen (1995), Wilson (1995 to present), and the finding aids themselves (University of California, Berkeley, 1993 to present). Other finding aid projects are underway including Duke University, Harvard University, the Library of Congress, and Yale University. For further information see the references section.
- 1/24/97 Chuck McClure, Evaluation Consultant, makes an onsite visit.
- 3/16-19/97 Museums on the Web conference in Los Angeles attended by Marsha Williams, Sue Seyl, Barbara Abrams, and Todd Welch
- 8/97 Todd Welch will attend a EAD workshop.

The retained consultants' and the PORTALS Evaluation Consultant spent significant portion of their OHS contact time in staff education and training. OHS staff made extensive use of the Internet and listservs on professional topics (EAD, LSCH, Archives and Archivists lists) to obtain needed information and training. WWW pages frequently mentioned include the Commission on Preservation and Access <<http://palimpsest.stanford.edu/cpa/reports>>, Library of Congress, American Memory page <<http://lcweb2.loc.gov/amhome.html>>, Northern Arizona University's Special Collections Department <<http://www.nau.edu/~cline/speccoll/imagedb.html>> and the United States Holocaust Memorial Museum in Washington, DC <<http://www.ushmm.org/>>. In the maps area, Columbia University (see for example, Oversized color images, <<http://www.columbia.edu/dlc/nysmb/>>) and the British Columbia Archives and Records Service (BCARS) <<http://www.bcars.gs.gov.bc.ca/cartogr/general/maps.htm>>. Others at OHS relied on colleagues at former places of employment or schooling. OHS staff previewed books at Powell's Technical books. For additional staff development activities see list compiled by one staff member (Richard Yost) of his

activities, see Appendix H-5. For additional comments see the "Continuous Staff Development Needed at All Levels" section under "Lessons Learned."

Project Work Products

This sub-section lists and describes the major products, services, and other outcomes as a result of the grant.

Five OHS collections were part of the digitalization process: the artifact collection from the OHS museum and the manuscript, photographs, maps, and oral history collections from the OHS library. Appendix H-6 "Collection Pages for Web Sites" depicts the near term list of collections involved. The OHS work products can best be understood in terms of the series of steps necessary to digitize each of these collections. Appendix H-7 "DOE Project Work Flow" graphically depicts the process. These steps were essentially the same for each of the collections:

- **Select the material to be digitized.** Selection processes varied among the units involved. The Museum Artifact department intended to digitize all of its collection so the issue was which to do first. The other OHS collections units intended to select a representative portion of their collections and the issue was what criteria to use in selection. For further discussion of selection criteria see Lessons Learned, Selection of what to digitize is complex, below.
- **Make slide images of the items selected.** Initially there was hope that photographs, manuscripts, maps and other flat items could be quickly scanned into digital form. OHS experiments determined that the quality of the scanned image was not satisfactory. Further there was questions about the archival value of other formats such as Photo CD and computer hard disk. After much trial-and-error in July 1996, OHS adopted 35 mm slides (using T-64 slide film) as the preferred archival medium, at least for now. Photo Craft (320 SW Stark Street, Portland 97204, (503) 225-0515) developed the slides. OHS made one slide for each item except in the case of a map where OHS made five slides (1 full size and one of each quadrant of the map) for each map. See Appendix H-8 "Map Inventory records" for a partial illustration of the recordkeeping involved.
- **Convert slide images to Photo CDs.** OHS views Photo CDs as an acceptable offline backup storage medium in case of erasure of items stored on a hard disk. Other options were optical storage (in original grant proposal but not purchased) or another hard disk (expensive) or magnetic tape backup (known to be unreliable with digital images because tape loses image data over a short time). Slides could be used as a backup (particularly with the recent OHS purchase of a slide scanner that yields high quality digital images). However, in the event of a need to recover lost images (e.g., due to a broken hard disk) retrieval of the images from the slides may be too cumbersome, time consuming, (and from a preservation perspective the less handling of the slides the better).

OHS could choose to directly access an image stored on a Photo CD (typically a group of CDs on a jukebox) from the Internet. Direct access of the Photo CDs is somewhat slower (this is changing), would require purchase of a jukebox, and require technical knowledge regarding networking of the jukebox which OHS does not presently have. However the principal reason for not using direct access from the Internet to the Photo CDs is image quality. The Photo CDs completed so far by OHS still need further editing (cropping to

remove among other things a border, color correction, gamma correction, and other adjustments) before use. It is not clear to the evaluators why slides couldn't be scanned, edited and then stored on Photo CD ready for WWW access. For further information on Photo CDs see Kodak in references.

The present process has the image technician, after examining the slides for quality errors, prepare the slides for Lazer Quik. He checks the Photo CD images upon return from Lazer Quik and stores the returned slides. Note the labor involved. Lazer Quick (1134 SW 5th Street Portland, OR 97204) converts the slides to Photo CD. The process takes on average a week costing \$79 per CD of 100 images (\$.69 per image and \$10 for blank CD). Each Photo CD stores a high resolution surrogate image of the original. An algorithm is then applied to the image which allows the Imaging Technician to view the digital image from 5 different resolutions : file sizes: 128 x 192 : 72K, 256 x 384 : 288K, 512 x 768 : 1.13MB, 1024 x 1536 : 4.5MB, and 2048 x 3072 : 18MB. The Imaging Technician uses the third size (512 x 768 : 1.13MB) when processing the image from the PhotoCD. See Appendix H-9 "Image capture to Photo CD, Photo CD to WWW" for further detail on the slide and photo CD process.

The image technician, recommends OHS move this process in house if planning extensive and ongoing Photo CD production. OHS would need to purchase CD-ROM writer, blank disks, and software.

- **Enhance image quality.** Digitized images need cropping (typically to remove the border surrounding the digitized item) and may need other quality improvements like gamma correction and color correction despite careful preparation of items when shooting slides . At present, OHS performs this editing on the digitized image (in this case using the Photo CD image uploaded to hard disk) using such software as Photo Shop.
- **Convert the Photo CD images to hard disk storage.** Hard disk storage permits the fastest present access to images for use on the WWW (which is still rather slow). Conversion steps include image cropping (using Photo Shop and a Kodak viewer), gamma correction, color correction, saving the file in processed archival (average resulting size is 1.13MB in TIFF or PCD, decided not to use the base times 4 image), thumbnail (average of 30K file size, GIF) and full-size (average of 100-200K file size, JPEG) formats and managing the file sizes, and digital watermarking. At present, this process takes from 3-6 minutes per image. The Image Technician is working on a way to batch process the full-size and thumbnail images after editing the archival images which should significantly reduce the staff time involved (the batch process can be run overnight). See Appendix H-9 "Image capture to Photo CD, Photo CD to WWW" for further detail on the slide and photo CD process. See Appendix H-10 "Web Scanning/Imaging Register" for a partial illustration of the record keeping involved.
- **Catalog, to some degree, the items selected and add to digital databases.** OHS cataloged each of the items selected to some degree, generally in a brief format adapted from some national standard. An existing partial catalog of the photograph collection is being converted to the MARC standard as part of the grant. The maps librarian cataloged maps to be digitized to MARC standards. In a separate PORTALS HEA II B grant (subsequent to the present grant) OHS participates in the Coop Map Project. 1000 maps will receive abbreviated MARC cataloging and be stored on an Access database. The museum department catalogs its artifacts using brief records stored on an Argus database. The

library catalogues its monograph and serial collections using MARC standards and is adding local serial holdings to the OCLC database and the OHS Horizon catalog as part of the grant. But in general, OHS rejected full MARC cataloging as too labor and time intensive or in certain cases the existing OHS cataloging format was in use prior to the development of the MARC standard. For an example of the cataloging involved with maps see Appendix H-8 "Map Inventory Records." The decision about the level of cataloging in turn affects where OHS digitally stores the resulting catalog descriptions. Simply, if not up to MARC standard it will not be on the OHS catalog. As a result, a variety of paper based and now digital databases exist. Major databases include the Argus database of artifact descriptions, and several Microsoft Access databases under development.

- **Prepare finding aids to relevant collections.** The items selected for digitalization from the library (manuscripts, photographs, maps) were representative of much larger collections. Finding aids for the individual items and these larger collections also needed preparation. Initially, this aspect of the project was secondary but recently digital finding aids assumed prime importance because they give a better sense of the collections available to the external user and are searchable.
- **Captioning: Link finding aids, catalogs, images (where possible) and the collection via a search engine.** The Inquiry software promises to enable the search for information in all of the various databases produced inhouse of finding aids and catalogs, these in turn will provide access to existing digitized images (for the remote user) and the collections themselves. The Inquiry search engine will permit searching across the various OHS collections for the first time. See Appendix H-11 "Collection Search Engine" for a mock-up of the screen a user might see when using the Inquiry search engine. The Inquiry software is about to be purchased after much delay by OHS. An "Image Catalog Database," see Appendix H-12, will link bibliographic description, collection location, caption, and other relevant information (e.g., permissions to use) for presentation on the website.
- **Create a website to provide access to digital surrogates of OHS collections.** Work products presented on the website will include: the digital images, the OHS Horizon and other catalogs, finding aids, and the Inquiry search engine. In additions, the website will contain information on OHS, its departments, services, and policies. Appendix H-3 graphically depicts the full scope of OHS website plans. Todd Welch did the initial website design. But OHS contracted with Thurber Technologies for production design and maintenance. OHS staff wishing to add to or alter the website must seek permissions using a form (see "Web Site Proposal for New Material," Appendix H-13).

Kris White estimates the costs of digitizing a manuscript page at roughly \$30 including slide creation, Photo CD mastering, cropping and editing, conversion to hard disk storage, and preparation of descriptive captions. This figure includes staff time in processing but not selecting an item or website maintenance. This figure assumes the infrastructure is in place (computers, staff, staff training, software, workflow, etc.) OHS will make a more precise cost estimate with further experience.

Table 1 "Summary of OHS Work Products" presents the grant targets, and current status of the work products arranged by department. Consult the OHS website < <http://www.ohs.org/> > for the latest information. The current status portion of Table 1 makes use of benchmark data regularly kept by John Mead, Director of Reference and Research Collections, for the project (for examples see Appendix H-14, Sample Benchmark Statistics Sheets).

Table 1

Summary of OHS Work Products

Department	Grant Targets	Current Status
Museum Artifacts	5,000 of 85,000+ artifacts made accessible via digitized images and cataloging of some type.	<p><u>Select</u>: The museum intends to have its entire collection on Photo CD and ultimately on the website. Selection is complete.</p> <p><u>Convert to slides</u>: Prior to the grant the museum created 28,000 slides. 2,000 additional slides made during the grant period.</p> <p><u>Convert to Photo CD</u>: Prior to the grant 28,000 slides converted to Photo CDs. During the grant period 2,000 slides converted.</p> <p><u>Convert to hard disk</u>: The Image Technician cropped gamma and color corrected 600 items and placed them on a hard disk ready for WWW display.</p> <p><u>Catalog</u>: 20,000 items entered into Argus database prior to grant. Now a total of 47,604 items cataloged.</p> <p><u>Finding aids</u>: Exist for some of the items and planning underway to make them accessible on the website.</p>
Maps	300 images of maps appropriately cataloged drawn from a collection of 30,000 maps. {Note: No commitment made to convert maps to GIS format.}	<p><u>Select</u>: 334 maps selected from 557 collections of approximately 20,000 maps by examining 668 maps. Selection completed by 12/96. For a tentative listing see: <http://www.ohs.org/maps/mapaid.htm>.</p> <p><u>Convert to slides</u>: OHS scanned 19 maps (11x17 or smaller) and converted 40 maps to test slides. Making slides from the rest of selected maps is a next step.</p> <p><u>Convert to Photo CD</u>: This is the next step. OHS used 19 scanned maps in Photo CD beta test.</p> <p><u>Convert to hard disk</u>: Next step in the project.</p> <p><u>Catalog</u>: Over 183 worksheets cataloged to MARC standards prepared, with 155 entered into OCLC and the OHS catalog, Expect to complete by grant's end.</p> <p><u>Finding aids</u>: Some finding aids exist and there are plans to make them accessible on the WWW. Coop Map Project plans to add 1000 brief catalog records on a separate Access database searchable by Inquiry.</p>

Manuscripts	2,500 pages from 450 collections made accessible via digital images and cataloging of some type. Overall Manuscript collection is 14,000 cubic feet.	<p><u>Select</u>: Reviewed 19,530 document pages from 477 collections, selecting 3,422 items for digitalization, later de-selected 375 pages, for a total of 3,047..</p> <p><u>Convert to slides</u>: OHS converted 1,391 manuscript pages to slides and reviewed 1,200 of them.</p> <p><u>Convert to Photo CD</u>: 553 manuscript pages prepared, 106 of them enhanced.</p> <p><u>Convert to hard disk</u>: 10 sample items are on the website see: <http://www.ohs.org/mssample.htm>. this is the next step.</p> <p><u>Catalog</u>: 154 collections cataloged, 720 images cataloged (of 3,047 items).</p> <p><u>Finding aids</u>: 36+ collection inventories prepared and coded in SGML for use with the Inquiry search engine and the WWW. More in preparation with the assistance of 4 interns. 16 finding aids are on the website see: <http://www.ohs.org/mssample.htm></p>
Oral Histories & Sound Collections	<p>100 oral histories including 40 full biographies of state legislators and several others averaging 16 hours in length and related materials. (Note: No commitment made to transcribe these histories into text.)</p> <p>Total collection of 500+ items.</p>	<p><u>Select</u>: Selected a core group of central figures first (these were obvious), then tried to show the variety of types of government officials, then those that would impress the listener. Selection is complete.</p> <p><u>Convert to hard disk</u>: Audio quotes from each history, an image of the person will eventually be digitized.</p> <p><u>Catalog</u>: MARC records for selected histories added to catalog -- not complete.</p> <p><u>Finding aids</u>: Prepared a list of all people mentioned in the entire oral history collection. Prepared outlines and proper name indexes for each (average 20-30 pps.). These aids need to be entered into MS Word. Intend to make these aids accessible on the WWW via Inquiry search engine.</p>

Photographs	2,500 photographs from 358 lots totaling 150,000+ made accessible via digital images and cataloging of some type. There are upwards of 2.5 million images in this collection with on average 200 new photographs being donated a week.	<p><u>Select</u>: Completed selection of 2162 images in 4/97 by reviewing 358 collection inventories and then examining 102 collections containing 63,266 photographs.</p> <p><u>Convert to slides</u>: 2619 slides made (some were re-done)</p> <p><u>Convert to Photo CD</u>: 25 Photo CDs made containing 2162 images made</p> <p><u>Convert to hard disk</u>: 485 photos imaged, 200 enhanced.</p> <p><u>Catalog</u>: Conversion of the photography catalog on the Wang to MARC records and made available on the OHS Horizon catalog begun in 12/96. A template using Microsoft Access for photographic image descriptions created and data entry begun in 1/97. Fields include: image file name, CD code and image identifier (a standardized naming convention allows path access to file on hard disk), descriptive title (including date of photograph), and organized lot number.</p> <p><u>Finding aids</u>: 300 photo inventories (finding aids) exist, 200 of which are in WordPerfect.</p>
All	<p>Develop the website.</p> <p>Make digital images of the collections, the catalogs, and finding aids accessible on the website.</p>	<p>In 2/97 OHS website available: WWW: http://www.ohs.org/</p> <p>Inquiry search engine to link various catalogs and finding aids into a meta-index is about to be purchased. OHS already developed data structures and formats already.</p>
Serials	Add 1313 local serial holdings to OCLC and Oregon Union List of Serials	602 done, found OHS did not own 25 as of 6/1/97. Intends to update the State Library's ORULS database as well.
Oregon State Archives	Create WWW series Echoes of Oregon	<p>There are twenty three items in the Echoes of Oregon History set as of May 15, 1997</p> <p><http://arcweb.sos.or.gov/echoes/defaultechoes.html> including: Willamette Cattle Company Agreement, 1837; Account Book, 1840; Certificate for Boarding a Lunatic, 1845; Sandwich Islander Tax Bill, 1845; Shark Broadside, 1846; Declaration of Intention, 1849; Animal Bounty Bill, 1849; Resolution to Expel Catholic Missionaries, 1849; Description of Land Claim, 1849; Defendant's Request, Whitman Massacre Trial, 1851; Willamette University Trustees' Report, 1853; An Act to Prevent Sabbath Breaking, 1854; Petition to Allow the Thomas Family to Stay in Oregon, 1854; Prohibition Petition, 1854; Committee on Education Report, ca. 1854; Indian Agent Regulations, 1855 Arms Inventory, 1855; Letter about Oregon Volunteers, 1856; Church of the Brethren Petition, 1856; Abstract of Votes, 1857; Request to Open Indian Lands, 1857; Half-Breed Citizenship Bill, 1857; Memorial to Congress, 1858; and Divorce Petition, 1858.</p>

OHS learned the current limits of the digitalization process as the result of the grant. One of the early casualties was the hope that digitalization would contribute to preserving the collection (the technology is not yet ready). But a principal plus, meeting a key grant goal, was improvements in citizen access to OHS materials. Improvements in access available to PORTALS members and citizens as a result of HEA II-B grant include:

- A sense of the range and diversity of formats of OHS's collections via image representations, textual descriptions, finding aids, catalogs, and the Inquiry search engine.
- A better sense of whether or not OHS is an appropriate place to come to research a specific topic due to expanded cataloging of the collections, expanded development of finding aids, the addition of a website, the Inquiry search engine, and e-mail contact.
- A way for a remote researcher to prepare a research plan in advance for a trip to OHS due to e-mail, website, and finding aids.
- A more complete picture of OHS's products and services prior to physical arrival on site due to the information presented on the website.
- The ability to search the collections, and find linkages across them, in ways not previously possible using the Inquiry search engine.

Overall, OHS should be commended for their efforts to meet grant goals and target objectives.

Dissemination of Project Results

This sub-section identifies specific ways the grant participant disseminated project findings to the local, state, and national communities and the profession including publications, videos, press releases, presentations, external training sessions, etc.

OHS is the most active of the grant participants in disseminating information about their grant efforts. These efforts ranged from teaching courses (Archives Management and Public History) at Portland State University (which OHS gained four practicum students this year who produced finding aids for the project); systematically registering the website with a range of search engines; hosting visits by area museums, educational institutions, and high tech firms (these "show-and-tell" visits occurred as often as once a week in the fall 1996 and Spring 1997 period by one estimate); presentations at regional professional meetings (Todd Welch, Kris White, and Sue Seyl presented separate papers at the Spring Northwest Archivists meeting May 14-17, 1997 in Spokane, WA) and national (Sue Seyl will do a panel at the fall Society of American Archivists); a brief feature on a local television station (KGW, channel 8); and press releases (See Appendix H-15 "Oregon's Rich Cultural Heritage On-Line" for an example). A brief article, "OHS spins a web at www.ohs.org" appeared in *Oregon History Magazine*, see Appendix H-16. Kris White notes the beginning this spring 1997 of phone calls and other contacts inquiring about various aspects of the HEA II-B grant project. For a sample of individual staff dissemination activities, see the lists compiled by Kris White and Richard Yost in Appendix H-5.

Sue Seyl also made a point of noting the need for dissemination within OHS not just to the rest of the world. The OHS web task force played an important role first in focusing attention on the need for building awareness within the organization and then as a vehicle for disseminating the latest

project news. Another important mechanism was the all staff computer conference held in January 1996. The Onsite Evaluator did not have time to interview those OHS members not participating in the project directly to get a sense of their awareness and knowledge of grant activities.

Evaluation Efforts

This section identifies specific ways OHS used to evaluate the project. OHS is the most active of the grant participants in devising means of self-evaluation for the HEA II-B grant project. Examples include:

- Since December 1995 John Mead collected benchmark data bi-weekly (tied to the OHS pay period) on portions of collections digitized.
- OHS monitored staff hours spent on the project.
- OHS developed a number of work forms and written procedures to digitize archival materials?
- Project Navigator, Barbara Abrams, appointed in September 1996 to coordinate grant activities across OHS departments and improve overall communication. She immediately created a set of "what if" spreadsheets to track: the original proposal, changes to it, and what if scenario impacts on the budget. This enabled her to see better the evolution of some of the grant pieces, particularly coming on in mid-stream.
- OHS formed a Web Task Force (met weekly then bi-weekly) and a Department of Education Team to assess where OHS is in the process, communicate across units, air disagreements, and adjust accordingly.
- The Web Task Force creates a form (see Appendix H-13) which codifies the policy and procedures mechanism for adding new information to the website.
- Todd Welch did a series of flowcharts on the digitizing portion (see Appendix H-7) and WWW design portion of the grant (see Appendix H-3) that were useful visualization tools.
- Argus database produced reports on progress on creation of artifact text descriptions. Horizon catalog produced reports on status of various cataloging efforts.
- Log analysis software to assess website usage tried but not found satisfactory (See Appendix H-18).
- Appropriate use of external consultant evaluations by Beth Sandore, Coordinator for Imaging Projects, Associate Professor of Library Administration, University of Illinois and James R. Blackaby, Visiting faculty, University of Victoria and President of J.R. Blackaby. The consultants filed reports on their 3/14, 5/2,, 6/12, and 9/23-25/96 visits with OHS and later received by PORTALS and the Evaluation Coordinator.
- Welch, Todd. (1997, January 31). Progress Report on Oregon Historical Society portion of the U.S. Department of Education, Citizen access to government and other information project. (Submitted to PORTALS and Evaluation Consultant).

OHS used the production of the report as an opportunity to take stock of its experience to date.

OHS's concern with evaluation was evident to both of the evaluators during their respective visits.

The fundamental flaw with OHS's evaluation efforts to date is that they have not involved their users. OHS's evaluation efforts have been focused on understanding or improving its internal operations or use of information technologies. OHS does not appear to have asked its users for input, assistance, advice, or help aside from the obvious efforts of the development department. For example,

- OHS did not ask for input from its users regarding selection of items to be digitized. User based evaluation could have been combined with a game, "See your favorite work from the OHS on the Internet." OHS could have raised money, "Have your favorite OHS work on the Internet for a donation of \$100!"
- OHS did not explain onsite or on the Internet its efforts to digitize its collections asking for advice, explaining constraints as they were discovered, preparing users to appreciate the results, educating users as staff became educated, inviting users to educate OHS staff.
- OHS did not consider how it might interact with its new users on the Internet or promote onsite interaction via the Internet. OHS does not list staff names, phone numbers, office addresses, and e-mail addresses on its website.

Lessons Learned

The OHS project might be characterized as a series of challenges, experiments, and adjustments. Principal challenges included:

- **Digitize Selected Items from OHS Collections:** Discovering, often by trial-and-error, the processes, procedures, and technical options available to digitize the various OHS collections. Then fixing on an efficient and effective digitalization method to meet grant objectives. Then exploring possible uses for the resulting digital images given the now known constraints of quality, time, resources, and staff needed. Specific lessons learned and discussed below include: the selection of collection items to be digitized, deciding how to digitize items selected, and, given that hard-won knowledge, identifying uses for the digitized images.
- **Digitize and expand finding aids to OHS collections:** Adjusting OHS's course when organizational learning suggested that finding aids would prove as valuable, if not more valuable, to users as digital images. Discussed below are specific lessons learned including why the Inquiry meta-index matters.
- **Website Development, Establish a virtual OHS on the Internet :** Establish an OHS Internet presence by creating a website. Populate the website with OHS products, services, policies and procedures. Explore the meaning of a virtual OHS and its consequences for the organization. This portion of the project is just getting underway so the lessons learned are few.

- **Learn, as an organization, from digitalization:** Establishing and maintaining a learning organization, continuously training staff, and adjusting structure, policy, and procedure where necessary. Specific lessons learned discussed below include: the need for continuous staff development at all organizational levels, that systemic change is not frictionless, but archive, museum, and library cultures can co-operate, and the need for organizations to learn how to best use relationships with outsourcers

This sub-section identifies significant lessons learned by OHS from each of these principal challenges which may also be of interest to similar organizations in other settings. Two challenges not directly addressed yet by OHS relate to OHS users both physically present and virtual. What will be the consequences of OHS's digital presence (on its website) for OHS staff and its products and services offered onsite? Second, who are OHS's digital users (on the website), what OHS products and services do they want, what can these digital users offer OHS? Facing these challenges are clearly on OHS's horizon, they are lessons about to be learned and are considered in the Recommendations sub-section rather than here.

Digitize Representatives of the Collections

Digitizing representative items from the artifact, manuscript, map, oral history, and photograph collections was the first challenge OHS faced in the minds of the participants. Discovering, often by trial-and-error, the processes, procedures, and technical options available to digitize the various OHS collections. Then fixing on an efficient and effective digitalization method to meet grant objectives. Then exploring possible uses for the resulting digital images given the now known constraints of quality, time, resources, and staff needed. Specific lessons learned include: the selection of collection items to be digitized, deciding how to digitize items selected, and, given that hard-won knowledge, identifying uses for the digitized images.

Selection of collection items to be digitized

In terms of what to digitize, the Onsite Evaluator heard a number of different selection criteria being used including:

- Visually interesting: Does the image convey information that a user could not obtain any other way, or obtain as rapidly any other way (this includes manuscript text).
- Copyright free (or permission to image granted). In the case of maps, this meant produced by the government or published prior to 1920.
- Contributes to an overall view of Oregon history with attention to significant highlights,
- Ease of digitalization (flat, 11x17 or less, item would photograph adequately),
- Fragility of item to be digitized. If too fragile not touched. If item would be otherwise inaccessible and it could be handled with care by OHS staff, then the item was a candidate for digitalization.
- Ease of cataloging. Images that were digitized were cataloged. If the item was already cataloged or part of a collection in which some prior organization was present it was more likely to be considered for digitalization.

- Link in an obvious way, to other OHS collections likely to be digitized or with planned exhibits. For example, a planned exhibit on the Oregon trail might link a map of the Oregon trail to a diary entry of an early settler, to an artifact and book on the topic.
- Illustrates the collections diversity in terms of format or content,
- Frequent past use of materials by OHS collections staff and onsite users,
- Federal requirements (e.g., Native American artifact holdings needed to be identified.),
- Grant focus on government information.

The selection criteria for items to be digitized, cataloged, and made accessible on the website were largely collection driven. This is not surprising given the collections departments role in the grant's development and implementation.

OHS could have chosen other selection criteria than those driven by the collection. For example,

- Will the web image generate revenue or help the development unit to target a certain group when fund raising?
- Did website users request the image, were selection criteria collaboratively developed by website users and OHS? Already OHS has had to develop new collection and donation policies in response to website public demand. See "New Deed of Gift" Appendix H-17. Already e-mail requests for manuscript information are greater in number than letter requests (but still less than phone requests which the highest).
- Does the teacher (or the OHS education unit) think the image best conveys the educational point trying to be made?
- Did a market survey suggest users or OHS members wanted images of a certain type?
- Does the image represent an historically underserved or neglected group?
- Is the image in some way like ones used by OHS's peers on their web sites?

These and other selection criteria may well become important in the future as other stakeholders become active and the website and collections become more digitally accessible. Will OHS, and in particular the collections departments (and those responsible for digitizing images), embrace these new selection criteria and these new selectors, particularly when external to OHS?

Deciding how to digitize items selected

A complex, evolving, approach

OHS's method for digitizing selected items from its collections evolved throughout the grant period. Several factors influenced OHS's evolving approach including:

- OHS is in some ways a typical historical society with significant portions of its collections not organized. Those portions which are organized are the result of isolated, uncoordinated, small, grants which unintentionally promote a tendency toward idiosyncratic, customized, localized, information processes (i.e. cataloging and workflow) and specialized staff roles (encouraging a perverse form of job security). The best historical societies, OHS among them, resist these tendencies but they are a presence that all instituting change must recognize.
- Changes in the information technologies necessary to digitize the collections. In general, organizations seeking to digitize their collections today will find improved quality, reduced costs, more options present more clearly explained, and cheaper storage.
- Better appreciation of what digitizing involves and the value of various alternative options gained by OHS as a result of trial-and-error learning.
- Better appreciation for how digitized images could and could not be used by OHS as a result of trial-and-error learning.

The evolution towards a best method of digitizing for OHS is by no means over. Neither the technology or OHS's learning curve has peaked yet.

Approaches considered

Approaches to digitalization that OHS that OHS considered, with some brief comments about each, include:

- Scanning (not artifacts of course) -- quality was not high enough for use or archival purposes, would require extensive handling of collection.
- Digital camera -- quality was not high enough for use or archival purposes, fast processing, reduced handling, relatively inexpensive, would re-consider when quality improves and then cost comes down.
- 4x5 slide -- high quality, good archival preservation, high cost, not by itself a total solution (not digitized), not the way industry went so companion pieces (e.g., slide scanner) may be more costly.
- 35 mm slide -- acceptable quality and archival preservation, lower cost, industry standard approach, not a complete solution still need to digitize -- OHS currently using this as one element of its approach.
- Photo CD -- assuming photo (slide) is high quality CD image is high quality, quick and easy to create, low startup costs, reasonable production costs, uses existing equipment in part, can outsource where equipment not owned, can output to printer, digital form, need for post-processing due to apparently incomplete control of cropping color, etc., creates yet another intermediate surrogate (still have to digitize to control cropping and color), input is a surrogate (the slide) rather than the object. -- OHS currently using this as one element of its approach.

- Slide scanner -- converts slide directly onto digitized hard disk storage. OHS recently purchased a Nikon scanner. The Image Technician says results are high quality. This raises several potential changes in procedure. The Photo CDs cannot be used for Internet access at present principally because the images need editing (cropped and color corrected). Could the slides be digitized onto the hard disk, edited and then be made into Photo CD images suitable for direct access on the Internet? This would alleviate some of OHS's storage problems. Alternatively, is the process of making a hard disk copy of the slide image easy enough that a Photo CD image copy is no longer needed as back up? These questions are under consideration by OHS at the moment.

At present, for each item to be digitized OHS creates six surrogate representations. First is a slide photograph, then a Photo CD image, and finally thumbnail, full-sized, and archival digital images stored on a hard disk. That is, OHS creates six new surrogate collections (each to contain 10,000 representations) in order to digitally represent the 10,000 items chosen from its collections for the grant.

Current process

Each item to be digitized must be selected (requiring a professional's time). Each item must be found and retrieved from its present location or the slide copying equipment brought to the item. Each item is assigned a unique ID (within the file name length restrictions of the computer operating system). This ID number is used throughout the digitizing process and will become part of the file name of the image when stored on the computer hard disk. The Image Technician batches items selected and retrieved by size (making it easier to photograph). Often the item had to be temporarily stored (meaning finding the space for temporary storage and meeting each item's storage requirements) before being photographed. An image logbook to link object, ID number and position/number of the roll of film needed to be devised along with a place to comment on problems when shooting the slide. The item once photographed must be returned to its original location. A means for keeping location information with the item needed to be devised. When the Image Technician received the slides they needed to be identified, checked for quality (chemical residue, need for cropping, etc.), checked to see if all sent out returned. Then the Image Technician organizes the slides into lots of 100 to be put onto the Photo CD. OHS stores the slides separately from the original and the image on CD) also requiring staff time, storage, and documentation. When the CD-ROMS return the Image Technician checks to see if the images are all there and of acceptable quality. These steps (among others) required more staff time in planning and implementing that was originally imagined.

Documentation: A full time job

Keeping track of the item and key events (what was sent, when, to who, received back when, etc.) and work products (slides, cd-rom tracking numbers and disk location, file directory on a hard disk) in the process of digitizing an item from OHS's collection was a necessary and important but cumbersome task. No doubt as more organizations become involved in digitizing the record keeping process will be automated. Until then, organizations will need to allocate staff time to simply keep track of the current status of the materials to be digitized (and their location after digitalization).

Large storage requirements

OHS could only learn by experience about the memory requirements and types of storage (CD, slide, hard disk) necessary to digitize a collection. The grant target was to digitize 10,000 items. OHS

stores a digital representation of an item in three formats processed archival, requiring on average 1.13 MB in a TIFF or PCD format; a full size, requiring on average 200-300K in JPEG format, and thumbnail, requiring on average 20K. Rounded up storage for one item is 1.5 MB. To digitize 10,000 will require 15 Gigabytes of storage just for the images. This does not include software to prepare or use the images. This does not include software such as Inquiry and its large inverted files and other software needs.

At present, OHS is deciding how to manage the immense storage requirements necessary to meet proposed grant objectives. To meet the targets set by OHS for the grant will require a lot of memory, to digitize more of OHS's various collections will require a great deal of memory. "To continue to buy gigabyte hard drives is not an option." remarks OHS MIS Director. It may be that OHS will have to wait for memory technology to catch up with OHS's need.

Current criteria when considering a change of approach

A current summary of criteria OHS employs when considering a new approach to digitizing its collection would include the following (not ranked):

- Affordable -- there is a threshold above which OHS simply cannot afford to be interested.
- Incorporates existing OHS technology (reduces cost, adds value to present equipment, reduces training).
- Range of output quality -- high quality for archival purposes, future needs, and to avoid having to re-digitize; lower quality so that (a) collection is not appropriated, for example if photographs on the WWW are too good a quality users will not pay for copies of the originals a current significant source of revenue; (b) some feel that users should, for their own benefit, have to come to OHS to use its collections (there is no substitute for physical contact with the collection, there are other items of potential interest to users not available on the WWW which the user could find out about if physically present at OHS).
- Improved processing -- Does the approach reduce the time it takes to digitize an item or make it available to users, improve workflow, is it simpler or easier to use (requiring limited training), does it reduce handling of materials, or reduce need for recordkeeping?
- Compact storage and transmission -- Does the approach reduce the amount of digital storage needed and (as a result) increase the speed with which an image can be sent to a user?
- Archival value -- Does the approach improve preservation of item or its surrogate?
- Meets standards and avoids need to re-invent the wheel, now or in the future -- Does the approach require re-doing already digitized items, will the approach require a re-do in the future?

The search for an ideal approach is by no means over at OHS. But the expectation that such an ideal will ever be met is tempered by experience.

Identifying uses for the digitized images

Originally there was the hope that eventually, starting with this grant, a substantial portion of the OHS collection and finding aids would be digitized at high enough quality for OHS and its users at a distance to rapidly access and use OHS materials in both old and new ways. One way of viewing the history of the grant however, is as a series of reductions in expectation, but with the possibility that the day after tomorrow all original hopes might still be fulfilled (due to some new technological improvement). An early reduction in expectation came when OHS concluded that at present digital images could not be used for preservation purposes due to a combination of cost, processing time, storage requirements, inadequate quality, and continued questions about the stability of the storage media,

The prevailing view at OHS today, after the trial-and-error of learning how to digitize its collections, is that digitizing images takes too much time, staff, and resources; that high quality images take up too much storage (1.13MB was minimally acceptable for use by OHS and remote scholars) and take too long to view over the web (they take a long time to download), and their use once downloaded could not be controlled by OHS. Why would anyone physically come to the institution with its collection digitized? Why would anyone pay for a copy of an OHS photograph when they could download it free from the website (an important source of revenue for OHS)? How could we prevent the use of OHS material without attribution? How could we prevent the use of OHS material without alteration? With these considerations in mind, why digitize?

The prevailing view at OHS today is that the principal use of digital images (or video or film clips) is as advertisement, maybe for education (yet to be explored), but not for scholarship, information management, or preservation. The exception to this view is the Museum Artifacts department which began digitizing its collection first years back, intends to digitize the complete collection, and finds the digital images essential for locating objects in the collection and for insurance purposes. At present, OHS has two reasons for digitizing images, one fairly firm, the other still to be tested. There is general agreement that digital images on the OHS WWW site make attractive, eye-catching, "with-it," statements. The use of digital images conveys the impression that OHS is not some dusty old museum but a place you ought to visit in the 21st century. The use of digital images on the OHS website attract new and old users to come and visit the collections in person. Digital images can also be used to give potential visitors a sense of the depth and variety of OHS's collections both in content and in form. A second reason to use digital images is in k-12 education. This potential use is about to be tested with the introduction of the Kids Page on the OHS website. Images, not necessarily of the highest quality, catch and hold children's attention and can best convey key ideas.

Digitize and Expand Finding Aids to the Collections

OHS gained practical experience with digitizing their collections in 1996. They concluded that for the present (who knows what technology will bring) that the production of digital finding aids were more valuable to their users than digital representations of the collections themselves. The cost, storage requirements, and processing time was high, often only yielding minimally adequate quality digital representations. The University of California, Berkeley reached a similar conclusion earlier and began the Berkeley Finding Aid Project. See Daniel Pitti's (1993 to present) progress reports, Hensen (1995), Wilson (1995 to present), and the finding aids themselves (University of California, Berkeley, 1993 to present). Other finding aid projects are underway including Duke University, Harvard University, the Library of Congress, and Yale University for further information see the References section.

With the decision to focus on digital finding aids OHS next faced the catalogers conundrum: faced with a hugely impossible job (organizing all of OHS's collections) do you catalog a few things well (i.e., use MARC and other national or international standards), or catalog more adequately (i.e., the Coop Cataloging Project which uses a partial approximation of the MARC standard), or make inventories, lists, even public service desk cheat sheets (with varying degree of local control) to survive the public's insatiable need for information? This conundrum is made more challenging by different, conflicting, and even non-existent standards for non-book/serial materials (i.e., artifacts). Beth Sandore, the OHS consultant, was of great help to OHS staff as she decided what to do using her experience to indicate when "well" was necessary and "adequate" cataloging good enough. What has overshadowed these decisions, and what makes the digital environment distinctly better, is the promise of meta-indexing software such as Inquiry coupled with the WWW.

Why the Inquiry Meta-Index Matters?

OHS is made up of a set of different collections including photographs, manuscripts, books and serials, maps, oral histories, artifacts, and various finding aids to all these collections. Over the years, OHS developed various partially completed databases using different software on different computers including the Ameritech/Horizon library catalog containing the libraries book, serial, and other major collections; the Argus database of artifacts, various Microsoft Access databases (including Map groups, photography inventories (finding aids -- to be done), captions and link information for digital images to be accessed by WWW, the manuscript item catalog, manuscript finding aids (to be done) and even in WordPerfect like the oral histories outlines and proper name indexes). In addition, there are various OHS paper indexes that could be converted to databases including the vertical file index, biographical index, pioneer index, and genealogical index.

WWW browsers such as Netscape or Microsoft Explorer provide a common window through which to view data. The SGML or HTML tags tell these browsers how to interpret or view various types of data in different formats. So here is OHS with lots of data, including some that it has an HEA II-B grant to digitize (read, make capable of being viewed by a web browser). Further OHS has all these databases which help locate OHS's collections in different formats. Needed: Some software that will look to the user like it is searching one big database but in reality the software will really go out and search all the databases (on all the different formats and computers OHS has) that index OHS's collections and report its findings back to the user.

The software that goes out and searches all of the different digital databases OHS has and then reports its findings back to the user's web browser is the Inquiry software. Without this software, all of the existing OHS databases and the collections they index remain isolated from each other. Without this software, databases developed to different standards can not be jointly searched for useful information. With this software, staff across all of OHS's collections and OHS users will have new and unprecedented access to the collections. Topics can be searched across the different types of collections present at OHS.

With the improvement this software promises there is a strong incentive at OHS to produce additional finding aids because their use and accessibility is no longer limited to OHS staff, multiple standards are now less important, and even "survival" cataloging can be used.

Establish a virtual OHS on the Internet

What are the consequences of having so much of OHS accessible by users not just staff?

OHS's web presence is only several months old and the institution is only beginning to consider and respond to the consequences and impacts of virtual OHS. Already there is a certain amount of concern, and a sense of venturing into unknown territory as more and more of the OHS backrooms becomes available on the WWW page. How will user communities respond? What will it mean for OHS, for staff, for users? The answers to these and other questions represent lessons about to be learned. Worth mentioning briefly are three catalysts which contributed to the establishment of OHS's website: a champion, a task force, and a collaborative outsourcer.

Todd Welch got tired of waiting for an OHS web page. So one weekend, at home, on his own computer, while he was building a page for the Northwest Archivists (where he is Secretary/Treasurer) he designed a prototype OHS web page. The impact at OHS was immediate, suddenly staff had something concrete to help them understand what this WWW stuff was...and it was created by one of their own.

The second catalyst was the creation of the Web Task Force by the OHS Director. Significant was the Director's first charge to the group: Should OHS have a website? For people like Todd Welch, the website was overdue. But for others in the organization websites were quite new. The task force provided a forum and a vehicle for those in the know to educate others within OHS to a website's importance and significance to OHS. The task force also provided a place to work out problems and disagreements.

The final catalyst was the decision to outsource website production to Thurber Technologies. Thurber was new to the business and ready to please. OHS trusted Thurber due to prior work Thurber had done for OHS. OHS's technical staff were over extended with grant and other activities. It was important at this developmental point that no one was seen to "own" the website within OHS. At present, with the website launched and initially established, there is active discussion about bringing web site development back in house. In any case, Thurber Technologies played an important role in the development of the OHS web presence.

Learn, as an Organization, from Digitalization

Perhaps the key challenge OHS faced was the creation (or maintenance) of an experimental environment and a learning organization. An environment that tolerated mistakes but with a mechanism to learn from them and to recognize success and integrate it into organizational practice. A flexible staff with a "loose" hierarchy to enable the most effective use of talent and interest. An organization capable of tackling the new, or new to the organization, without falling apart and at the same time, maintaining the valued old processes and services. The Onsite Evaluator speculates that a hidden asset was OHS's existing organizational structure. A structure common to many contemporary archives and museums. A core staff funded from the operating budget provides stability and core services while a critical mass of short term experts, funded by soft money, experiment. Some of today's experiments become tomorrow's core services. So while there is considerable respect for the old, there is thoughtful appreciation of the new. OHS managed quite well, there is a flexibility and spirit that even a short term visitor senses.

Continuous staff development needed at all levels

OHS learned that a major project like the grant will require education and training for all staff: those implementing the grant as well as those affected by it, those implementing a new technology as well as those managing the technologists, the "technically challenged" as well as the "technically dangerous," and the volunteer staff as well as the paid. Training needs are continuous and some needs may be unexpected. Contracting with consultants to devote part of their time to staff training can be very useful if thoughtfully planned. OHS does not have a training officer, unit, or fixed operating budget. OHS does seem to have an environment in which dumb questions are welcome and thoughtfully answered, at all levels of the organization.

Need for Technology Training: Basic Computer Literacy and Advanced Technical Skills

There is the usual range of technical competence within OHS. At the extremes, notes MIS manager, there are the 10% who are "technically challenged" and the 10% who are "technically dangerous." The "technically dangerous" are those who need to know, want to know, or think they know more than presently do about some technical aspect. The MIS Director recently noticed a definite healthy increase in the "technically dangerous" as a result of the grant. Even the MIS staff would like to take classes on advanced UNIX topics offered by the local Sun education unit. The "technically challenged" lack basic computer and network literacy skills and may even resist basic training. Barbara Abrams, Project Navigator, notes that this project "raised the bar" across the staff in terms of minimum expectations of what staff should be able to do. Even volunteer staff must adjust when OHS shifts to a digital environment. At present, OHS recognizes the need for volunteer training and for the creation of technological jobs suitable for volunteers. But because the digitizing process is still new and not yet fixed, planning for volunteer recruitment, role re-definition, and training in this area is on hold.

Need for Management Training

The focus of staff training for projects of this type is often on technological training but manager's need training as well. Barbara Abrams, Project Navigator notes that, "We assumed that good managers before would be could managers in a new technological environment and in many ways we shot ourselves in the foot." Senior managers, and even the Board, all could have used training in simply managing a project of this size including: basic project management skills, project management software and Excel spreadsheets; how to staff at appropriate levels; budgeting; and how to document a project of this type. Managers need technical skills as well. Managers needed to understand what their subordinates did, converse with them, identify staff technophobia, recognize the difference between staff technophobia and why the staff needed a particular piece of technology (hard or soft) now! Several managers want detailed training in core software in use (e.g., Access and Inquiry) particularly when the software becomes a standard in the ongoing work of staff unexpectedly (e.g., At the beginning of the grant, the importance of Access and Inquiry to the project was unknown.). These managers cautioned that the need to know technology would never come at the right time and would always seem costly in terms of time, energy, and sometimes money.

Use of Consultants Time Partially for Staff Training: A Plus if Thoughtfully Done

OHS experience suggests that one of the roles a consultant can and should play in the early phase of a project like this is as a staff trainer and educator. If thoughtfully done, this portion of the consultant's time can be as beneficial as specific advice about certain problematic decisions or the consultant's outside evaluation of grant progress or next steps.

A Department of Education requirement, resulting from the grant contract negotiations, was that OHS hire a consultant. OHS eventually hired two consultants, Beth Sandore and James R. Blackaby, who became a team as a result of working with OHS. How OHS hired the consultants, the consultants themselves, and OHS's approach to using the consultants served as an intensive staff training exercise. OHS identified a set of questions that OHS project staff had at that point in the project. OHS then addressed those questions to the consultant candidates. When OHS combined Beth Sandore and James R. Blackaby's answers, most of the OHS staff's had useful answers. The process of identifying OHS staff questions, engaged everyone, made OHS aware of the need for staff development, and specifically identified the type of training necessary.

When the consultants arrived onsite they appear to have immediately seen the need for an educational component and generously offered training and direction. The consultants readily shared their mistakes (OHS chose both consultants because they had hands on experience) as well as their successes (e.g., Jim Blackaby narration of the development of the Inquiry search engine at the Holocaust Museum.). This more than anything else helped OHS staff to relax, not panic, to realize that they were not going to make "one crucial mistake," and not be "so uptight when making every decision." OHS arranged for the consultants to meet widely within the organization, and with groups as well as individuals, spreading further what the consultants knew. The two consultants had different backgrounds and ways of talking about a problem. This often enabled them to bridge the many cultures involved in the project including lay, technical, library, and museum cultures. Overall, most felt the OHS experience with the consultants was (to quote Barbara Abrams), "one of the highlights of the first year of the project."

Hidden Costs of Over Specialization

Staff training pays many hidden dividends. Barbara Abrams, Project Navigator, points out that there is a hidden cost in the way the grant is staffed and trained in that current decisions promote staff specialization. Specialists demand and command higher salaries, specialized positions are harder and take longer to fill, or can't be filled and projects fail. Staff that are cross trained can fill in for gaps in personnel at a reduced cost.

Systemic change is not frictionless

How and when money is allocated internally for what remains an issue. Conflicts arise when someone at the height of his learning curve needs a resource but must interact with others whose attention must necessarily be episodic or has not yet had time to catch up to the needed resource's importance.

The notion of appointing a project navigator, a sort of analogue to the product champion in business, on its face, seems like a good idea. Project navigators might well work for many grants. But then issue arises, who to appoint? Clearly the person must have both authority and influence, they must have time to devote to the project navigation task, and they must be technically competent. For a smaller project, someone possessing all of these characteristics might be found. The issues here are two: the project affects every aspect of what OHS does (one must have authority, influence over all, and time for all) and second the technical concerns differ enough among the formats being digitized that a difficult job of keeping up verges on impossible. Wanted: Person with the authority and influence of the Director (to cover the problem of systemic change), plenty of time (after all, what do directors do anyway), with technical mastery of digitalization of multiple formats. Issue summarized: in the

absence of superior knowledge, authority, and time all have had to and will continue to have to contend, learn, and live together -- not to mention learn to forgive. It is not clear whether the OHS project participants realize yet that an ideal project navigator will not be found (at least not until enough historical societies and libraries go through what OHS is trying to do now).

There were persistent complaints about delays in the purchase of software or hardware (some of which was budgeted in the original grant proposal) necessary to complete some phase of the project. The delays were evident to the onsite evaluator, but their cause was not. Were the delays and resulting conflict normal for an organization experimenting with new technology? Is there mis-communication between requestor, authorizer, and purchaser? The evaluators suggest that the situation be investigated and an accounting offered to OHS staff.

Multiple lines of authority in a fluid work environment creates an ideal state for lack of accountability (or the appearances of such among co-workers). Managers expressed concern to the onsite evaluator that they did not always know whether certain work or requests for resources for such work was authorized or whom to ask. Many expressed the need for a manager who could cajole, prod, or force where needed the completion of targeted deadlines. One successful model in similar environments is a form of management by objectives approach. Each staff member develops a set of objectives to be met say quarterly and at the end of the quarter explains their success for failure in meeting the objectives. Those in charge sign off on the objective setting and later evaluate whether the employee met the personal objectives set. Important objectives and targets can be changed at any time with approval of all those to whom the staff member reports (assuring a continued, realistic balance). This approach better defines chain of command, allows all to see the workload for each staffer, sets up an audit and accountability trail for each person, yet preserves individual initiative and responsiveness to shifting work requirements.

Perhaps at the stock taking session recommended below solutions will emerge because OHS, as an organization, is experienced enough to reapportion authority, time, resources, and technical mastery. Or perhaps experience will enable all to recognize that the above described frictions are the norm for 21st century organizations facing the unknown and learning together.

Archive, museum, and library cultures can co-operate

The grant brought the museum and library worlds together as together they worked out problems associated with digitalization. Each culture was encouraged/forced to learn enough about the other to effectively work together. The museum and library found common interests and began bridge building. A key case in point is preparation of the catalog and finding aids. The cataloger trained to do monographs suddenly must learn how to catalog manuscripts, serials, photographs, maps, oral histories, even one day, artifacts. Along with each of these formats is an associated tradition, culture, and personalities -- all needing to be mastered. The payoffs to all are obvious. In particular, with the advent of the Inquiry meta-index, OHS and its users will be able for the first time to find and use materials from all of OHS's collections. The desirability and possibility of collaborative projects now is easier or in some cases possible for the first time.

Digitalization seems to enable or force the interaction of a range of previously isolated cultures. This is not limited to cultures based on race or geography, but cultures such as the archival, library, museum and computer cultures. One OHS staffer remarked that, "digitizing information for the WWW is bringing institutions and departments together that had very distinct operating practices in the past." The need for distinct ways of operating is breaking down in the face of a process of presenting

information from each of these operating units on the WWW that does not differ much among these previously separate units. Organizations and their staff must recognize that the new culture that emerges from the meeting of two older cultures may be quite different than either. Are the days of specialized manuscript, monograph, map, and artifact catalog units over? Do separate museum, archive, and library units still make sense? Organizations must prepare their staff members for these culture contacts so that the most can be made of them.

Learn how to best use your relationships with outsourcers

At key points during the project, external vendors, consultants, and outsourcers played significant positive roles. Deciding what should be done internally within the organization, finding external partners, communicating clearly what is needed, and cultivating ongoing relationships are important, learned, skills. OHS learned how to make use of external partners successfully. In the case of vendors, leveling the playing field between vendors who did prior work for OHS and new bidders by offering thorough briefings on OHS needs and then giving serious consideration to all bids mattered. Thoroughly checking out vendors including visits to local offices, checking with the Better Business Bureau was useful. Regular communication with vendors to find out what is new and share new OHS activities also helped.

At key points during the project, external vendors, consultants, and outsourcers played significant negative role. OHS appears to have above-average working relationships with its vendors which it works hard to maintain. But OHS has also dealt with vendors who did not meet their own deadlines, would not set a deadline, and vendors that OHS needed more than the vendor needed OHS. These situations created uncertainty and extensive delays. Others planning to use the same technology, or planning to use current information technologies in general need to know that uncertainty, delay, and dependence are the norm. Legal action is sometimes limited but often the only recourse available. Barbara Abrams, Project Navigator, notes that at the start of the grant period attorneys were seldom involved in small and medium sized contracts. Today attorneys routinely read all OHS contracts.

Lesson for OHS: It is Time to Combine its Technical and User-based Approaches

In sum, to address the question what should be digitized and why, OHS has gained extensive experience with the question of how to digitize but no experience yet with what its digital patrons would like in digital form. In library parlance, OHS has adopted a technical rather than public service approach to exploring these questions so far. The limits of the technical approach by itself are well known: the explorer learns something of what is possible and nothing of what is needed. The lesson for OHS is that it is time engage its virtual patrons in a discussion to discover what is needed so that OHS and its outsource partners can use its hard-won knowledge of what is possible to make it so.

Next Steps

This sub-section suggests next steps to be taken as this grant period comes to an end and to advance the project's objectives after the funding period. OHS staff identified a number of other next steps during the interviews with the Onsite Evaluator including:

- **Digital Images: Meet grant targets for digitalization of representative portions of its collection:** Despite present hard disk memory concerns, OHS is committed to meeting the targets it set for digitalization of representative portions of its collection by the end of this grant period. In order to meet grant targets to create digital images for 10,000 items, OHS must address several problems. Principal problems include: find an acceptable way to store processed archival images; finish conversion of Photo CD images to processed archival, full-size, and thumbnail images (Onsite Evaluator told existing hard disk memory is adequate to store the full size and thumbnail images used for the website and required to meet grant targets); protection of hard disk stored images from erasure or corruption (which has been an problem for the artifact images placed on the hard disk so far); complete conversion of oversized maps to slides; and advance the oral histories portion of the grant.
- **Finding Aids: Use Inquiry search engine to link existing digital catalogs and finding aids:** Purchase Inquiry and then use the software index and provide access to existing digital catalogs and finding aids. This will be exciting for remote and onsite users, it will also be exciting for staff, for example, planning exhibits.
- **Finding Aids: Increase production of digital finding aids:** The development of digital finding aids will expand once the use of Inquiry as a meta-index to digital finding aids is successful.
- **Finding Aids: Continued processing of less organized collections:** A collection has to be organized or otherwise split into manageable units in order to receive further processing (for example, be examined for items to be digitized). There are "gems" contained within these less organized collections that all the staff, over time, would like to make accessible.
- **Website Development: Move website development in house, get other OHS units on board, improve web access, and consider the websites strategic role:** Todd Welch demonstrated a prototype web page which propelled OHS to develop its own site by outsourcing the work to Thurber Technologies. OHS is at a crossroads: do they continue the Thurber relationship or find the funds to hire a web master in house. In any case, other units within OHS will become a part of the website efforts. The OHS website needs to be made accessible to the majority of Oregonians who use dialup technology that can not handle the present graphically intensive OHS website. OHS needs to consider the role of the website in its strategic planning. To do that OHS needs to consider who its users are, what their needs are, what they can contribute to OHS?
- **Address the impacts of the rapid organizational changes brought about in part by the grant:** The current need to institutionally embed lessons learned about effective ways of coping with ongoing change caused by the grant or information technologies regularly surfaced during the onsite interviews. Diagnostics include policy documents being prepared then policies waiting for adoption by senior management, the perceived need to regularize information technology training, discussions about the job description of the Project Navigator, delays in resolving the image storage question, and the ongoing discussions about standardizing the digitizing workflow across formats (and departments).

- **IT and OHS a new equation?** OHS needs to consider the importance of information technologies to a modern historical society and take actions to reflect that importance in organizational structure, staffing, and resource allocation. The grant increased awareness of information technologies, their resource requirements, their required staff roles, and their potential importance to OHS. The next step is to consolidate this new awareness into embedded organizational practice to maximize information technologies utility.

These areas are likely to be pursued in the coming months and as this phase of the grant ends. OHS also received another installment of funding from the DoED HEA II-B grant.

Recommendations

OHS has made substantial progress towards its grant objectives. OHS has moved as an institution from the 19th to the 21st century in the process. The evaluators offer the following recommendations based on the onsite visit and subsequent discussions and in the context of a successful grant effort. The fundamental challenge as this portion of the grant ends is how to consolidate the learning resulting from the grant in institution wide structures, policies, practice, and services so as to continue OHS's blend of solid service and innovative experimentation.

Complete Grant Targets for Digitizing Selected Items from OHS Collections

In order to meet grant targets to create digital images for 10,000 items, OHS must address several problems. Principal problems include: find an acceptable way to store processed archival images; finish conversion of Photo CD images to processed archival, full-size, and thumbnail images (Onsite Evaluator told existing hard disk memory is adequate to store the full size and thumbnail images used for the website and required to meet grant targets); protection of hard disk stored images from erasure or corruption (which has been an problem for the artifact images placed on the hard disk so far); complete conversion of oversized maps to slides; and advance the oral histories portion of the grant. The grant targets are a worthy goal and clearly a prod to staff to advancing the project. It is time for the final sprint after a long race!

OHS is concerned that the digital representation of its photography collection (as well as other collections) will be used without OHS agreement. Digimark offers a digital watermark which may offer some protection. Digimark is a local company (down the street from OHS) with a national reputation. Contacts made by Richard Yost should be pursued. A donation from Digimark would be nice. A co-partner in future problem solving in this area would be much more desirable.

The evaluators sense that OHS feels it has pushed present affordable technology in this area to its limit. OHS must now await further technological developments. The technological requirements are clearer now than at the start of the project. First, a digital camera with high enough resolution to efficiently capture preservation quality images of a range of items from oversize maps to manuscript pages and photographs, to three-dimensional artifacts. The goal is to digitally capture an item, no matter the format, at high quality and without the need of duplicate collections (one collection of originals, one because of quality, one because of cost, one because of rapid retrieval, one because of preservation, etc.). Existing means of storage and editing tools seem adequate for post-processing and editing of captured images. Second, the digital camera should be linked to a cheap, permanent (secure from image deletion and stable enough to serve as a preservation medium), storage mechanism with (at the same time) rapid retrieval capability (of various quality/resolution/sized images) for fast Internet accessibility. The existing web interface seems to be adequate to presenting OHS's digital information.

Third, the digital camera and adequate storage must be connected via high speed information transfer to OHS's patrons desktop (or living room). OHS and patrons must await the availability of an affordable high speed network to take advantage of the digital representations of OHS's collections.

Digitize and expand finding aids to OHS collections, Link with Inquiry Software

The Inquiry meta-indexing software promises to make both complete (e.g., OHS Horizon catalog of MARC records) and partial (e.g., a newly created digital finding aid to an unorganized lot of photographs) collection organizing aids accessible to onsite and remote OHS users. This is most useful to historical societies where their collections are not likely to ever be fully organized, but always in the process of becoming so. Further, these various collection organizing aids can be digitally combined to allow searching for information across collections. This meta-indexing feature may permit the discovery of exciting connections across collections not previously known.

To get there, to achieve the promise suggested by the meta-index's use, will require a great deal of work. Priorities, in a step-by-step fashion, from this distance seem to be to:

- Train more people in the requirements, capabilities, and use of the Inquiry software.
- Give key personnel a conceptual understanding of the contemporary database and information retrieval concepts which underlie Inquiry (and HTML/SGML).
- Consider the need for uniform finding aid standards across the collection departments to maximize finding aid utility in a digital environment.
- Devise rational principles for selecting the degree to which a given collection (or item) will be organized -- why MARC treatment, why a standardized finding aid, why no organization at all (yet)?

Note, we did not mention the purchase of Inquiry, the development of prototype applications, and the expansion of the production of digital finding aids (both from the conversion of existing non-digital aids and the creation of new digital finding aids). These needs seem clear enough at OHS not to require the evaluators attention.

What concerns the evaluators is the danger of isolating the knowledge necessary to effectively use the software in a person or unit within OHS. How OHS collections are organized and accessed is a core function of the organization. This requires that a range of staff within OHS be able to understand enough about this new method of digital information organization to converse, to imagine, to coordinate, and to use this emerging tool together. Not only does the staff need to know more than they do about this emerging way of digitally organizing data, so do OHS's patrons. In sum, it is not too soon to start transferring out from the technical personnel within OHS's collections departments the knowledge that the rest of OHS and its public will need to be innovative. It is not too soon to consider what are the organizational structures, policies, standards, and procedures necessary to maximize OHS's use of this new capacity.

Website Development: Establish a Virtual OHS on the Internet

OHS is laboring to give birth to a digital representation of its physical self: must it be the same, should it be different, should it always be tied to mama, who should have a say? To treat website production as a technical exercise to create an advertisement for one's (physical) self is surely to miss the point. The evaluator suggests OHS give greater imaginative attention to who/what its digital progeny will be? To do so consider the following suggestions:

- **Move website development back inhouse:** The evaluators believe that the need to rapidly and conveniently alter the content of the web page(s) will eventually make retaining the web page and its production within OHS the most attractive option. When OHS begins producing web based programs for OHS users the need for ready inhouse access will be almost mandatory. Producing and managing the website inhouse will require a webmaster. In addition to funding the position, problematic areas to address include the web masters job description, reporting relationship, relationship with the MIS department, etc. The solutions offered by a good inhouse webmaster who is well positioned within the organization will be worth the effort to obtain one.
- **Develop and enable inhouse capacity to alter the OHS website:** There are two suggestions implied here, one technical, the other managerial. First, to develop the skills (such as ability to code in HTML and SGML) among key staff to make simple alterations to the website. Second, make the organizational changes necessary allow and enable appropriate staff to manage their unit's portion of the OHS web site.

At present, with the web production done off site by Thurber Technologies, the incentive to learn how is removed or reduced. The evaluators recommend department heads designate staff to be allowed to alter web page content and that these staff receive training as necessary in OHS concerns for quality and standards as well as how to code properly in HTML/SGML. Drop the permission forms, they are too cumbersome. The webmaster recommended above can help here by identifying key staff within each unit to manage the unit's portion of the website, obtain and coordinate necessary training, establish standards for each unit to follow in such areas as common "look and feel," and monitor for compliance.

- **Improve website accessibility:** The Onsite Evaluator accesses the OHS website from home using a 28.8 modem and local telephone lines. This method of access is equivalent to the way most of Oregon's present Internet users from home, libraries, schools, even offices access OHS's website. For these users, access to the OHS site is painfully slow due to the high use of graphic images when it works at all (7 out of 10 times the screen froze when the Onsite Evaluator used the site). At minimum, the evaluators suggest that OHS should create a text only option on its homepage giving OHS users access to the website's textual content.

Further, the evaluators suggest that OHS ask for feedback on its site from visually handicapped users. Comments from these users could be useful in designing a better site for those with normal vision as well. Making the OHS website compliant with Americans with Disabilities Act standards increases access and improves design. For further information see: International Committee on Accessible Document Design (ICADD). Available: WWW: <http://www.ucla.edu/ICADD/html2icadd-form.html> or U.S. General Services Administration. Center on Information Technology Accommodation (CITA). Public and private resources section. Available: WWW: http://www.gsa.gov/coca/pub_res.htm

- **Create an OHS Intranet:** Many organizations are finding (1) that the web is a useful supplement to other forms of internal organizational communication, for example, internal policy development (2) that this communication is best done on a separate, institution only, web site. If the present web site is on the Internet, the proposed internal site is the Intranet. The evaluators believe an internal web site might be useful to OHS -- if for no other reason than it is a great place for staff to practice their HTML/SGML!
- **Focus on OHS's digital users and the digital environment:** OHS should seek to incorporate mechanisms on its website to engage its digital users in a dialogue about what digital OHS should be, the types of information and services that should be offered, etc. OHS should adjust its internal practice to effectively respond to feedback from its digital users. The MIS director will quickly become tired of filtering and channeling digital users feedback (as is presently the case) if it grows as it should.

Perhaps the Web Site Task Force, after each member has created their own web page (the exercise is enlightening), should pause and consider: must the Virtual OHS be the same as the physical version, should it be different, should it always be tied to mama, who should have a say?

Information Technologies: Peripheral or Core Functions of a Modern Historical Society?

The MIS and Communications Department consists of two people, one recently hired (4/21/97). This unit handles selection, purchase, installation, troubleshooting, and maintenance of computer hardware (including 75-100 personal computers) and software for all of OHS. The department's major responsibilities include providing computing resources for the grant, accounting, membership, development, the point-of-sale and inventory systems for the store, e-mail for staff, and management of the Novell network. In addition, the department is responsible for OHS's telecommunications needs including telephone, fax, and pagers. Web site development and maintenance of the Sun Sparc20 are outsourced to Thurber Technologies. Much of OHS's technology base is funded by grants and other one-time funds. OHS staff's use of information technologies increased dramatically over the past three years.

Has the selection, installation, use, and replacement of information technology (IT) and the training of staff and patrons in IT's effective use become a core OHS function? If so, is the information technology function authorized, staffed, and funded on par with other core OHS functions (and consistent with current and future IT needs)? Has OHS taken an inventory of the staff's information technology skills, has OHS matched need to know with current level of IT knowledge? Has OHS begun a program of staff training correct mis-matches? The evaluators pose these questions without certain knowledge of the answers. But the rapid introduction of information technologies to OHS, their continued high cost, their apparent importance, and the intended present and future use of these technologies suggests the need for strategic attention to IT's new place in the organization.

Focus on OHS's Digital Present and Future Users

Now that OHS is to the stage where there is "something to show" its users, the evaluators suggest it is past time to shift OHS's attention to its users both those that are virtual as well as those onsite. The evaluators suggest OHS pursue several strategies:

- **Explore the meaning of a Virtual OHS with your users:** The basic questions to be asked about the digital environment are not much different from those asked in the non-digital world: What do OHS patrons need, what resources does OHS have of use, and how can OHS patrons help OHS to thrive? OHS needs to create onsite and on net forums to ask, listen, and discuss with users the meaning of what a Virtual OHS ought to be?
- **Experiment and prototype** particularly with targeted groups already on the Internet. OHS did not begin to grasp the importance of a website until Todd Welch created a prototype web page. Your patrons are no different, stimulate their imagination.
- **Prepare the institution** to address user response. It is pointless to ask and not be prepared to respond, to learn, and to share the dialogue of question, response, and lesson with others. This implies an organizational commitment to ask, to efficiently and effectively respond, to evaluate and adjust, and to educate others including staff, patrons, and the professions.

Ask, listen, learn, act it sounds simple but it is not always easy to do. The good news that all those who would succeed at establishing a virtual presence on the Internet are engaging in these simple processual steps. Invariably they discover the messy, baffling, uncertainty associated with the beginning of any creative act. The bad news, particularly for those who have built before asking, is that the babel from the building may drown out the voice of need and innovation. The expenditure of staff energies and resources in the building (in this case of a digitally based OHS) translates too readily into commitment to the existing edifice however imperfect and unwanted.

Learn, as an organization, from digitalization: Stop and take stock

In the fall, perhaps after, or as part of the final report for this first HEA II-B grant, the evaluators recommend the institution as a whole pause, and take stock of where it was and where it is now, what it learned along the way, and next steps that need to occur to encourage continued success. To an interested outsider, OHS learned a great deal as it moved from material to digital culture, or at least added digital culture to its storehouse. The danger is that the learning will not be consolidated and embedded into institutional practice.

Get the Word Out

Perhaps one of the byproducts of moving rapidly, as Sue Seyl notes, "from the 19th to the 21st century" may be that OHS does not know how much it has to share with fellow historical societies, museums, archives, and libraries. Many businesses would have an interest in the OHS experience as well. The Onsite Evaluator noticed the tendency of OHS staff to compare their work with the current "big names." The comparisons miss the point when it comes to disseminating what OHS knows. The "giants" of the field may not need your findings (although the evaluators would disagree). But the organizations just like you, of which there are many, believe they are alone in their interest, alone in their problems, and without recourse because no one of their size, or type, or situation is disseminating what they know. Get the word out!

All of the above recommendations are in the context of a very successful organizational effort to digitize images from key portions of the OHS collections, develop and link via meta-indexing a range of finding aids to the collections, establish a presence on the Internet, and modernize a range of institutional practices. The evaluators commend the Oregon Historical Society for their efforts which will dramatically increase access to Oregon's rich heritage to all of Oregon and beyond.

VI. Overall Project Conclusions and Recommendations

Conclusions

This report documents substantially improved citizen access to federal, state, county, and city government information in Oregon as the result of the U.S. Department of Education HEA II-B grant to the Portland Area Library System (PORTALS). This grant enabled the:

- Conversion of important historic government and other materials to digital format,
- Creation of new government information in digital format,
- Organization of government information in more useful ways for citizen access,
- Change in internal institutional practice necessary to better deliver government information to citizens via electronic networks,
- Increased capacity to deliver information via world wide web pages on electronic networks,
- Ability to receive electronic government information extended to rural Oregon libraries.

This is due to the significant progress made to date by Oregon State Library, Multnomah County Library, and the Oregon Historical Society toward meeting their grant objectives. PORTALS itself will need to make additional strides during the remaining grant period in order to achieve its own programmatic objectives under the grant.

Recommendations

PORTALS Should Re-Assess its Interest in and Responsibility for Grants of this Type

PORTALS has a new interim Executive Director and there is a new President at Portland State University, a key PORTALS member. This is an opportune moment for reassessing appropriate goals and directions for PORTALS. Indeed, this activity is already underway. The evaluators note the activities of the interim Executive Director in this area as represented in the PORTALS draft strategic plan (Available: WWW:<http://www.portals.org/plantoplan.html>).

Although overall management and organization of PORTALS is beyond the scope of this study, it is important to recognize that some PORTALS management issues did affect project activities. The components of the project for which PORTALS was responsible suffered from:

- Inadequate PORTALS and PORTALS membership staff to complete project activities: At PORTALS, staff assigned to the project had other, more compelling duties; staff were not hired (i.e., the local evaluation assistant); plus there were staff turnovers and position vacancies. Staff from the PORTALS membership designated in the proposal to complete tasks did not, voluntary participants from member institutions were not solicited or used.
- Lack of shared project information and status of project activities among PORTALS board, Council of Librarians, and PORTALS membership. At best, this encouraged lack of interest, at worst, lack of project information created fertile ground for rumor.

- Competing views as to the appropriateness and importance of the project, and specific project component parts, from PORTALS Board, Council of Librarians, and PORTALS member organizations.
- Failure to share information among grant participants about the grant and other related activities of grant participants.
- Failure to utilize expertise developed by grant participants as a result of the grant for the benefit of other PORTALS members or even to ask how such an asset could be utilized.

In hindsight, it is clear that there was inadequate project staffing at PORTALS for it to conduct regular PORTALS business, manage the grant, and to implement the project component parts for which it was responsible. The degree to which PORTALS wishes to continue in the business of obtaining, managing, and implementing grants such as this one is a key issue that should be considered during the current strategic planning process recently initiated.

PORTALS decisions about goals and direction directly affect the outcomes of the present and future HEA II-B grants. As part of this assessment process, the evaluators suggest the following actions related to the HEA II-B grants:

- Ask current grant participants to prepare a briefing for a joint session of the PORTALS Board and Library Council as well as other interested members. Specifically ask the grant participants to discuss ways the grant benefitted their institution and to identify potential ways the grant recipients might further benefit PORTALS as a result of the grant. Disseminate written briefing materials via the PORTALS website as well as other means.
- Ask future HEA II-B grant participants to brief the PORTALS Board and Library Council as well as other interested members at the same meeting suggested above on their planned use of their HEA-II-B grants. Specifically ask the grant participants to discuss ways the grant is expected to benefit their institution and to identify potential ways the grant recipients could contribute to PORTALS as a result of the grant.
- Create a committee to report to the interim Executive Director, composed of PORTALS members charged to (1) coordinate preparations for the joint Board- Library Council meeting discussed above (2) capture from that meeting and discussions with grant participants the ways PORTALS might benefit from HEA II-B grant projects, (3) post this report to the PORTALS website. (4) develop plans within the PORTALS structure for achieving those benefits for presentation to the interim Executive Director, Executive Committee and/or the Library Council. Post this report to the PORTALS web site. (5) recommend to the interim Executive Director policies and procedures to be followed by PORTALS and grant recipients upon award of a PORTALS sponsored grant.
- Present to the Board or Executive Committee a report prepared by the interim Executive Director containing recommendations for making use of the institutional assets created by the HEA II-B grants.
- Post this report to the PORTALS web site.

The evaluators believe this approach will contribute to enabling PORTALS members to work together more effectively. Indeed, the evaluators believe the PORTALS membership will not be able to effectively address PORTALS present and future involvement with HEA II-B grants without these or similar steps.

Ask Current Grant Participants for Ways PORTALS Might Support Grantees Better

The new Principal Investigator for the HEA II-B grants should contact the principals in the current and future HEA II-B grant cycle to ask for advice on ways that PORTALS might better support grant participants. This will establish the new relationship in a positive light and perhaps simple changes may make a big difference. The outcome of this discussion should be a written report to the interim Executive Director.

Reconsider Technology Choices When Planning the Next Grant or PORTALS Member Activities

The former Project System Programmer may be the only staff member of all of the grant participants who is comfortable and fully conversant with UNIX software at the level necessary to accomplish grant objectives. Yet UNIX software and supporting hardware was at the technological heart of each of the grant participants proposed projects. All grant participants struggled with the UNIX software and its associated technology purchased for the grant, performed grant activities on alternative technology and software, or preferred different technology and software. Uncomfortable technology and software delays progress. The lack of familiarity with technology and software to be deployed to PORTALS members constrained programmatic choices and delayed implementation. The evaluators recommend that if possible the process whereby the grant technology was chosen be examined, not to place blame, but to learn how not to make similar choices in the future. As an alternative, build in training for system administrators at grant sites so that the comfort level increases -- the technology chosen is in all other respects highly regarded.

As a separate matter consider budgeting for an uninterruptable power supply and firewall software for each Sun Sparc class computer purchased. These were unanticipated expenses for OHS. Finally, consider advising (but not requiring) grantees involved in experimental efforts (e.g., OHS during this grant period) to reserve up to 25% of their technology budget until well into the grant period. Technologies change rapidly, ideas about how to use technologies change almost as fast. It would be a shame to discover what technology is really needed after budgeted monies are expended.

Require Each Grant Participant, Including PORTALS, to Produce a Final Grant Report

Grant participants, including PORTALS, should be required (by PORTALS) to file an end of funding cycle report (after 9/30/97 cycle ends). The final report of each grant participant should follow a format similar to the present onsite evaluation. What were the grant objectives as proposed and a summary of key accomplishments? What were the key events, agreements, activities, etc. in chronological order? Identify ways found to aid in staff development? Describe principal work products as a result of this grant? Identify grant dissemination efforts by each institution? What lessons learned? This section, if done right, could be the most helpful for the institutions involved. The grant prompted major if not profound changes in how grant institutions deliver information internally and to citizens. Capturing and beginning to understand these changes can lead to significant organizational improvements at each of the participating institutions. Finally, the report should give some attention to next steps and recommended actions each institution plans to take.

Seek Ways to Promote Exchange among the Grant Participants

The onsite consultant was repeatedly struck by the similarity in some experiences among the participants. Donna Reed's experiences developing county and regional government web sites has much in common with the work of Ernest Perez (and Scott Smith and Mike Freese) in State government. Donna Reed and Rushton Brandis and the JumpStart libraries have much in common as they transform libraries into digital community information centers. All of the participants might benefit from OHS's experience with converting information in a range of formats into digital material accessible on the web. PORTALS should establish mechanisms to combine the experiences of the various grant participants for the good of the Portland area community. PORTALS efforts might extend to offering a one day conference with published proceedings showcasing the work of the grant participants.

Seek Ways to Make PORTALS and its Grant Projects More Visible

PORTALS was a remote entity poorly understood, to many of the grant participants visited by the Onsite Evaluator. PORTALS was not known to the users of products and services produced by the grant with whom the Onsite Evaluator came in contact. PORTALS needs to get its story out better. A start would be a tour of the grant participants projects by the Principal Investigator (and interim Executive Director perhaps).

The work of Multnomah County Library, the Oregon Historical Society, and the Oregon State Library would have national interest and impact if disseminated. The evaluators suggest PORTALS vigorously pursue its role as grants administrator and find ways to encourage and enable the grant participants to disseminate their findings.

PORTALS Should Hire the Staff to Administer Large Grants

For better or worse, PORTALS is in the business of administering large grants. This is a different business than running a network or sharing databases, or coordinating collection development or running a consortia. PORTALS should recognize that it is in the grants administration business and hire the staff to manage the grants, evaluate grant participants work, publicize grant activities, scan for new grants for the PORTALS membership, assist with grant proposal development, disseminate project findings, and the other tasks required in the grants administration business.

Consider Now How Subsequent HEA II-B Grant Segments Should Be Evaluated

PORTALS attention to grant evaluation from the proposal stage to date, when it thought about evaluation at all, was minimal. Notable were PORTALS failure to hire the local onsite evaluator funded by the grant and failure to file the 2/97 evaluation report requested by the Evaluation Coordinator. Without regular evaluation, compounded by staff turnover, multiple grant partners, and the award's size, problems were likely to occur. The evaluators strongly suggest immediate attention be given to developing a mechanism for continuous evaluation of the HEA II-B grant.

The portion of the HEA II-B grant evaluated here is the first phase of several future, multi-year grants awarded within one contract to PORTALS by the Department of Education. There are no plans to evaluate subsequent phases of this grant contract. Advanced planning for evaluation and close monitoring of the implementation of the resulting plan will ensure higher quality outcomes than otherwise possible. The evaluators recommend that PORTALS develop a plan for evaluating subsequent portions of the HEA II-B grant and act on it.

Extending Partnerships

Participants in the grant can take considerable pride in the accomplishments produced by this project thus far. The work done by the Oregon State Library, Multnomah Public Library, and the Oregon Historical Society clearly makes a significant improvement in citizen's access to government (and other) information electronically. The recommendations offered in this report suggest strategies that can build on the work done to date. The overall goals of the project either are or are soon to be accomplished.

Perhaps more important than the accomplishment of project goals is how the project provided a focal point for different organizations to work together successfully. To some extent, the project served as a catalyst that brought together a variety of organizations and agencies to provide improved public access to a range of electronic information resources. Moreover, the knowledge gained by project participants in implementing the grant is another legacy that can be used in the future. This knowledge and sense of partnership will provide an important base for future joint projects, coordinated resources sharing, and leveraging of resources for the benefit of everyone.

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Appendix P-1

Evaluation of Principal Sites Funded by HEA II-B Grant to PORTALS

As part of the site evaluation the Onsite Evaluator examined existing web sites at the participating institutions as of May 1, 1997. These sites include:

PORTALS WWW page. Available: WWW: <http://www.portals.org/>

Multnomah County Library. RITNet. Available: WWW: <http://www.region.portland.or.us/>

Multnomah County Library Web site. Available: WWW: <http://www.multnomah.lib.or.us/>

Oregon Historical Society WWW page. Available: WWW: <http://www.ohs.org/>

Oregon State Library. Oregon Public Library: JumpStart page. Available: WWW: <http://govinfo.kerr.orst.edu/jumpstart/jump.html>

I did not cover the state library sites because I could not figure out which ones the HEA II-B grant funded prior to the onsite visit.

The brief reviews and recommendations follow. In addition, there is a list of sources for evaluating web pages section included. Be warned this is "quick and dirty" use at your own risk. As the Onsite Evaluator my principal interest was in familiarizing myself with the web sites and organizations and not in conducting a full-blown evaluation.

Recommendations for the PORTALS WWW Page (<http://www.portals.org/>)
Reviewed on May 1 1997

Recommendations:

1) **Reduce clutter, change the organization, and sharpen focus of the page.** It was on clear to the evaluator who your principal audience(s) were. It was also not clear what PORTALS priorities are from the page. Some suggestions to start the process.... Reorganize opening screen around the following items: {underlined words indicate links to subsequent WWW pages.}

PORTALS is an organization of public and private institutions committed to working cooperatively in order to expand and enrich the information resources and services necessary for the scholarly research activities of people in the greater Portland metro area.

- Welcome to PORTALS

Includes PORTALS customer service FAQ, and reciprocal borrowing agreement.

- PORTALS Members and Contacts

Includes current PORTALS member list, institutional home pages, library home pages, and library catalogs

- PORTALS Information Services

Includes links to PORTALS licensed databases, Internet reference sources and pathfinders, and government information available via the Internet.

- Feedback

PORTALS looks forward to your corrections, new ideas, and comments.

Maintained by: XXXXX XXXXXX

Last Revised: XXX XX, XXXX

Notes:

a) Welcome to PORTALS subsumes the following present sections of the PORTALS opening www page (see above): About PORTALS, Customer Service FAQ, and Reciprocal Borrowing. I would add information about PORTALS staff, other public information about PORTALS (I.e., budget, board members and how governed, board minutes, other administrative, reports, plans, project status -- decent model for starters is state library).

b) PORTALS Members and Contacts: subsumes PORTALS Institutions, Institutional Home Pages, Library Home Pages, Library Catalogs, and Contacts.

c) PORTALS Information Services: subsumes the following present sections of the PORTALS opening www page (see above): PORTALS Licensed Databases, Reference Shelf, Internet

Information Services, Searching the World Wide Web, Government Information.

d) Feedback: is a new section.

2) Thoroughly proof existing WWW pages to correct typos and other unintended errors.

E.g. Opening screen:

"Reference Shelf

This sections contains links to some of the most heavily used resources available via the Internet. "
The word "sections" should be "section."

E.g., Contacts link (listing PORTALS members) fails to list Portland State University

3) Change to the Welcome to PORTALS screens

a) Combine the PORTALS mission statement and customer service FAQ with the mission statement the first question asked and answered. Leave as is the reciprocal borrowing agreement.

b) Eventually you could include such items as web usage statistics, what new, etc.

4) Change to the PORTALS Members and Contacts screens

a) Merge the information presently contained in the contacts screen with the member list

5) Change to the PORTALS Information Services screens

5A) New PORTALS Information Screen appears as follows:

Reference sources and pathfinders

PORTALS licensed databases

Government information

5B) Merge prior Reference Shelf, Internet Information Services, Searching the World Wide Web pages into a new Reference Sources and Pathfinders Page

Scope: {What exactly is your criteria for including sources here, who is your audience.

Pathfinders and Guides (present Subject Directories): Agriculture | Anthropology | Biosciences | Business (General) | Business (International) | Children | Classical Literature | Diversions | Education | Introduction to the Internet (present Information About the Internet) | Job/Career Information | Literature | Plays | Sociology | Weather |

{Merge Business and Financial Information in with Business (General and International)}

Quick Reference

Search Tools

Directories: Libraries, Museums, Research Centers, Societies

Library Catalogs

Electronic publications

Maps

{The above reflects what you have on hand, note I recommend dropping from this section sources cited elsewhere (licensed databases, government sources, community networks, etc. Potential new categories include: Librarian Professional Development, News, Local Companies, Build Your Own Web Page, etc. Don't include if categories can not be maintained or are out of scope. Merge Searching the World Wide Web, at present it is duplicative (of, for example, search tools proposed above)}

5C) Change the PORTALS Licensed Databases page as follows:

Screen 1:

PORTALS Licensed Databases

License Restrictions: PORTALS databases are licensed from copyright holding vendors and publishers for use exclusively by faculty, staff, students, and users of consortium members. All others can not access these databases via PORTALS. Please understand that the restriction is a result of the limitations of our contracts with the database vendor.

Problems: Student, faculty, or staff of academic members of PORTALS should contact their institution for assistance. For contact information click here. Multnomah County Library card holders call the Library at 248-5223 for the number of their dial access port.

Index: {As is}

| AIDSLINE (AIDS Information Online) | BIOSIS Previews | Business Abstracts | CINAHL (Nursing & Allied Health) | Dissertation Abstracts | Ei CompendexWeb | ERIC | HealthSTAR | MEDLINE | MLA Bibliography | Newspaper Abstracts | Periodical Abstracts Research II | PsychINFO | UnCover | WORLDCAT |

New Screen 2:

List of Databases [ok as is]

{Note, while I have altered the wording and would like to shorten the text overall, my principal suggestions are two:

- a) Will users understand what "port of access is?"
- b) Move the license restriction to the same screen as the index to the databases.)

5D) New PORTALS Government Information Screen is present Government Information screen.

To be consistent why not include Portland under Local Government as follows:

Local Government Information

Links to local government and community networks in Oregon including the Portland Metro area. Will

eventually include similar pages with links for Alaska, Idaho, Montana, and Washington.

In a similar fashion:

County Government Information

Links to county government web pages in Oregon including Multnomah County. Will eventually include additional pages with similar links for Alaska, Idaho, Montana, and Washington.

6) Introduce Feedback section.

a) A simple place to start is to include a "mailto" form in addition to the existing opportunity to get in touch with the webmaster. Indicate that comments are welcome! Prompt the users as to why they might want to offer feedback (what types of topics) and clearly indicate that if you click here your comments will receive attention say within 24 hours. Feedback prompts might be useful at more than one location at the website. Later might include mailtos to individual staff if that is deemed desirable. You could also solicit feedback on specific topics, etc. using a cgi form. The maito only works if you have an email address and your browser is properly configured. Thus most users sitting at public terminals cannot use this option. Cgi forms, while a bit harder to program will work if the user does not have an e-mail account and also if the users is using a public terminal.

Recommendations for the Multnomah County Library's RITNet site
(<http://www.region.portland.or.us/>)
Reviewed May 1st 1997

General Issues

Is there some logic to the listing of the various menu items, would an alphabetical listing be better?

Specific Items

The following recommendations are keyed to the RITNet menu items.

1) Search RITNet

It might be better to separate searching the RITNet site from searching the rest of the world.

2) Elections

I know it was a big hit but why keep now?

3) Citizens Involvement I did not get the point of this section. Many of the other menu items you list are also in the business of promoting citizen involvement (e.g., Neighborhood Associations, non profits) why isolate what appear to be libraries in this menu item.

4) Maps and We Are Here

a) Why not use instead:

MapBlaster. Available: WWW: <http://www.mapblast.com/>

For starters try specifically:

<http://www.vicinity.com/yt.hm?FAM=mapblast&CMD=GEO&SEC=find&IC=0%3A0%3A5&IC%3A=Portland&AD2=&AD3=Portland%2C+OR>

Look at my html code at: <http://web.syr.edu/~jryan/infopro/gov.html#Maps>

b) Then consider adding:

Kindred, Darrell. How far is it? Available: WWW:

c) I was not sure what **We are here** was intended to mean. You might also want to include your street address, phone, fax, and solicit e-mail feedback.

5) Parks

Why list the url for: Crown Point State Park? Vista House? <http://www.vistahouse.com/>

6) Arts and Entertainment

Check html coding here, when I clicked on museums or university events I was sent to the main menu.

7) Creation date is of interest but so is most recent page revision.

8) See comments regarding County Government site next

Recommendations for the Multnomah County Library's Multnomah County's Web site
(<http://www.multnomah.lib.or.us/>)
Reviewed May 1st 1997

General Issues

- 1) Is there some logic to the listing of the various menu items, would an alphabetical listing be better?
- 2) Why not a menu item for libraries or one under non-profits for the libraries in the county
- 3) Next logical step is for a forms based application procedure where citizens can file for jobs, benefits, make complaints, etc. Directly on the Internet. For one example, see Maricopa County, AZ:
<http://ww2.maricopa.gov/feedback/services.html-ssi> and
<http://ww2.maricopa.gov/feedback/feedback.html-ssi>
- 4) Other additions include subject based access based on frequently requested citizen information needs. Even a simple subject index might help (Montgomery County: MD:
<http://www.co.mo.md.us/services/services.htm>)
- 5) A broad next step is to re-think the page in terms of major audiences needs. Who are the audiences: visitors, the press, planners, increasing citizen involvement, relation to politics and electioneering, benefits? What are their needs? One can start by comparing the present site to other county sites across the nation. However an in depth study of the local county needs is necessary.
- 6) Consider the need for a legal disclaimer (e.g., Dade County, FL: <http://lola.co.lee.fl.us/legal.htm> or more elaborate: Hennepin County, MN: <http://www.co.hennepin.mn.us/wservice.html>)
- 7) Other sites you might want to look at :
 frequently asked questions (Hennepin County, MN: <http://www.co.hennepin.mn.us/wfaqs.html>),
 phone directory [frequently called numbers] (Hennepin County, MN:
<http://www.co.hennepin.mn.us/wfreqnos.html>), contracts and purchasing (Dade County, FL:
<http://lola.co.lee.fl.us/purcmenu.htm> Orange County: <http://www.citizens-first.co.orange.fl.us/divisions/f&hrd/purchase/hotline.htm>), county documents index (Hennepin County, MN: <http://www.co.hennepin.mn.us/wdocs.html>), speakers bureau (Dade County, FL:
<http://lola.co.lee.fl.us/speakers.htm>), guest book (Montgomery County, MD:
<http://www.co.mo.md.us/cgi/comogest.cgi>), surveys (Wayne County, MI:
<http://www.waynecounty.com/survey.html> and <http://www.waynecounty.com/response.html>).

Simple but effective opening page design: Johnson County, KS: <http://www.jocoks.com/>

Notion of economic development, tourism, visitor services

Specific Items

The following recommendations are keyed to the County Web site menu items.

- 1) **Agencies** and in general, check for typos like this: "Regional Drug Initiative"
- 2) **Demographics and weather:** Perhaps trying to do too much here?! I would separate out into four separate menu items: basic facts, history (County Inventory and other sources), weather, demographics

(might want to include census information), etc. For an example of possible demographics information to include see Alameda, CA Economic and Demographic Information: <http://www.alameda.org/>

3) **Maps** Geographic Information Systems are a area of rapid growth and intense interest among local government officials. Watch for local initiatives/interest in getting GIS information on the Internet.

5) What exactly does the county cover (as compared to cities and state)? Does the county deal with Courts, Education, have a budget, issue, Fines, Taxes, Permits, Licenses, Payments, Health and Welfare Information, Law Enforcement, Public Assistance, Public Works, Zoning, Planning. {I know now you are working to resolve this with Celia Heron and others....}

Recommendations for the Oregon Historical Society WWW page (<http://www.ohs.org/>)
Reviewed May 1st 1997

- 1) **Add a text only option for presentation of the page.** While I am not fully conversant with the Oregon situation, my sense is that a significant portion of the likely Oregon institutional and citizen users will access the page via a dialup connection. Graphics, frames, Java, all contribute to reducing accessibility, or usability for the dialup user. I am not suggesting you drop graphics, frames, Java scripts, and other state-of-the-art methods of presenting the site. I am suggesting providing multiple ways of accessing the sites content where possible and appropriate.
- 2) **Consider adding links to other state historical societies.** I have compiled a list of them which you are free to use see: <http://web.syr.edu/~jryan/portals/histsoc.html>
- 3) **At present not much access to the full range of digitized images processed for the grant.** No doubt this is because processing of these images is not complete. It is not clear how OHS will make available all of these images to the WWW public.
- 4) **Focus on adding content and not (only) images:** Perhaps in OHS's haste to show of its work related to the grant it has over-emphasized graphic images. It might be useful to go back to Todd's original home page (and the one on PORTALS) and get some of these content areas in. Also taking a look at related historical sites (see 2 above) might offer some insight. I remain in favor of an OHS staff directory with address, phone, fax, and e-mail links.

**Recommendations for Oregon State Library
Oregon Public Library Home Page (JumpStart Project)
(<http://govinfo.kerr.orst.edu/jumpstart/jump.html>)
Reviewed May 1st 1997**

Menu items include: art, books, business and employment, grants and funding, health, house and home, internet and computers, kids' Sites, movies, radio and television, music, native american resources, news, phone directories, maps, zip codes, reference, libraries on the web, science, sports, tax forms and publications, time, travel, and weather. In addition, there is information on educational sites, government & community information, library links, internet searching (using subject directories, keywords and search for people and e-mail addresses) and further information on the JumpStart library project. In May 1997, the maintenance of this page was taken over by M.L.S. students at Emporia State University (Kansas).

The Onsite Evaluator would have liked to examine the Jumpstart Participating Librarians Support Page section but was not able to obtain permission. My initial reaction to this page was that it was very well done. Subsequent onsite discussions with JumpStart librarians and users confirm my initial impression. My concerns are really longer term, for example,

- How will you obtain feedback to keep in touch with changing interests. You do not ask for feedback on the web page. I suspect you do not track the types of questions people are asking of your most popular menu item: search engines. My sense of the audiences at the JumpStart libraries is that you would want to keep a close eye on current interests.
- While I could not look at the JumpStart participant page, I wonder about opportunities to deliver courseware and continuing education to the various users of the web page?
- One of the librarians surveyed had not heard about the JumpStart listserv, another did not use it. I am wondering (1) should the list be re-advertised (2) could its content be beefed up to attract users, or (3) should it be dropped because rural librarians in Oregon use other listservs.
- One of the most heavily used or requested (where they do not allow use) services by teenagers is chat areas, MOOS/MUDS etc. A chief concern among local Library Boards is what might go on in these "dens of iniquity." Is there a possibility of providing moderated chat areas satisfying the concerns of adults while not losing what makes this form of communication so appealing to teenagers?
- Is it possible to increase the interactivity of the site by using simply CGI forms to (1) allow for reference requests (to be handled by the State Library Reference Link program or JumpStart librarians in a round-robin fashion) (2) permit conversations on hot topics, a CGI form takes the comment and dumps it to some type of threaded-mail program so that participants could track the "conversation." (the CGI approach is suggested because most library users cannot make use of the e-mail feature, either because they do not have an e-mail account or the library does not permit sending of e-mail using the public machine.

In any case the present service is highly valued by the public libraries I visited, these are some quick additional suggestions.

Internet-based Sources for Evaluating WWW Pages

Compiled by
Joe Ryan
<jryan@mailbox.syr.edu>

General Style Guides

Advice to Christine. Available: WWW: <http://www.el-dorado.ca.us/~advice>

Advice on home page and net graphic design in the form of memos.

Australian National University. Internet quality guidelines. Available: WWW:
<http://coombs.anu.edu.au/SpecialProj/QLTY/QtyHome.html>

Bertot, John Carlo, McClure, Charles R., Moen, William E. and Rubin, Jeffrey. (1997). Web usage statistics: Measurement issues and analytical techniques. Available: WWW:
http://research.umbc.edu/~bertot/epa_stats.html

Ciolek, T. Matthew. (1994-1995). Quality, guidelines & standards for internet information resources. Australian National University. Available: WWW:
<http://coombs.anu.edu.au/SpecialProj/QLTY/QtyHome.html>

Cohen, J. K. (1995). Elements of HTML style. Available: WWW:
<http://bookweb.cwis.uci.edu:8042/Staff/StyleGuide.html>

Design of HTML for those with Disabilities. Available: WWW:
<http://www.trace.wisc.edu/HTMLgide/>

Herrick, Michael. Design considerations. Available: WWW:
<http://www.matterform.com/mf/hypermedia/hypermediahome2.html>

Horton, William, Taylor, Lee, Ignacio, Arthur, & Hoft, Nancy L. (1996). *The web page design cookbook*. NY: John Wiley.

HTML writer's Guild. Available: WWW: <http://www.mindspring.com/guild>

Hurley, Jim. Articles on webspace design. Available: WWW:
<http://www.webcom.com/~hurleyj/article/index.html>

NCSA. HTML Style sheet. Available: WWW:
<http://www.ncsa.uiuc.edu/Pubs/StyleSheet/NCSAStyleSheet.html>

Netscape, Inc. *Creating high impact documents*. Available: WWW:
http://www.netscape.com/home/services_docs/impact_docs/

Quinn, Christine. From grass roots to corporate image: The maturation of the web. Available: WWW:
<http://www.ncsa.uiuc.edu/SDG/IT94/Proceedings/Campus.Infosys/quinn/quinn.html>

Discusses Stanford University's evolving efforts to develop a "corporate" image for its web pages.

Richmond, Alan. (1994). *A basic HTML style guide*. NASA, Goddard Space Flight Center. Available: WWW: <http://guinan.gsfc.nasa.gov/Style.html>

Richmond, Alan. CyberWeb's Top Tips for Web Authoring. Available: WWW: <http://WWW.Charm.Net/~web/Style/> WWW: <http://WWW.Stars.com/Vlib/Providers/Style.html>

Sanders, Tony. *Bad style page*. Available: WWW: <http://www.earth.com/bad-style>

Set it up ergonomically! Available: WWW: http://www.best.com/~dsiegel/vestibule/set_netscape.html

Signall, Karl. Do's and Don'ts. Available: WWW: <http://millkern.com/do-dont.html>

Tillman, Hope N. (1997, April 17). Evaluating quality on the net. Available: WWW: <http://www.tiac.net/users/hope/findqual.html>

Tilton, James (Eric). *Style guide by counter example for HTML*. Available: WWW: <http://www.willamette.edu/html-composition/strict-html.html> WWW: <http://www.cs.cmu.edu/~tilt/cgh/>

Top ten things not to do on a web page. Available: WWW: <http://ee.stanford.edu/eecns/www/donts.html>

Top ten ways to tell if you have a sucky home page. Available: WWW: <http://www.winternet.com/~jmg/topten.html>

Web wonks tips for writers and designers. Available: WWW: http://www.best.com/~dsiegel/tips/tips_home.html

Werbach, Kevin. What makes a good home page. Available: WWW: http://www.access.digex.net/~werbach/page_design.html

W3O. Design Issues. Available: WWW: <http://www.w3.org/hypertext/WWW/DesignIssues/Overview.html>

Yale University. Center for Advanced Instructional Media. WWW style manual. Available: WWW: http://info.med.yale.edu/caim/StyleManual_Top.html

Best Sites

There are a range of different types of sites evaluated on a range of criteria (none considering the local context, stakeholders, etc.).

Exemplary WWW Sites. Available: WWW: http://www.sei.cmu.edu/tech/demo/good_sites.html

Global Network Navigator. Best of the web. Available: WWW: <http://gnn.com/gnn/wic/best.toc.html>

Point Communications. Best of the Web. Available: WWW: <http://pointcom.com/jpegs/topsites/>

Yahoo: Computers and Internet:Internet:World Wide Web:Best of the Web. Available: WWW:
http://www.yahoo.com/Computers_and_Internet/Internet/World_Wide_Web/Best_of_the_Web/

Yahoo: Computers and Internet:Internet:World Wide Web:Best of the Web:Not Really the Best.
Available: WWW:
http://www.yahoo.com/Computers_and_Internet/Internet/World_Wide_Web/Best_of_the_Web/Sites_of_the_Day/

Yahoo: Computers and Internet:Internet:World Wide Web:Best of the Web: Sites of the Day.
Available: WWW:
http://www.yahoo.com/Computers_and_Internet/Internet/World_Wide_Web/Best_of_the_Web/Sites_of_the_Day/

Appendix P-2

Schedule of Onsite Evaluation Interviews

Tuesday June 3 1997

Arrive in Portland

4PM Jim Kopp, PORTALS interim Executive Director, PORTALS office -- review evaluation plan.

Wednesday June 4 1997

10AM Introductory meeting with Donna Reed, MCL

1 PM Meet with PORTALS Board, Pacific Grove University Forest Grove, OR

Thursday June 5 1997

10AM - 5PM Met with OHS

First met with the majority of OHS involved with the project in a group introduction and discussion. Then spent the rest of the day meeting with Elizabeth Winroth, Maps Librarian, Laura Ayling, Map cataloger, Jim Labosier, Maps Assistant, and Mandy York, Maps and Photographs Cataloger; Barbara Abrams, Project Navigator and Deputy Director for Operations and Programs; Steve Hallberg, Chief Cataloger.

Friday June 6 1997

Meet with State Library participants

8:30 Ernest Perez, State Library, Room 101 General introduction, agenda review

9:00 Jim Schepke, General meeting & discussion

10:00 Ernest Perez OSF activities, user experience, cooperative agency efforts

11:30 Scott Smith, Information Systems Coordinator, Strategic Planning & Review, Department of Administrative Services and Mike Freese, State Printer

2:00 Roy Turnbugh, State Archivist, State Archives regarding Oregon Administrative Rules, Echoes of Oregon History

3:00 Rushton Brandis Review of Jumpstart project activities

Monday June 9 1997

10:30-1:30 Donna Reed, RITNet, Multnomah County Library

5 PM Telephone interview with Dennis Gilbert, who recently resigned as Project System Programmer

Tuesday June 10 1997

Meet with OHS

9AM Kris White, Director of Archival Collections

10 Marsha Williams, Director of Museum Collections in charge of artifact digitalization

1PM Chris Bostic, MIS Director and Communications Manager and Dwight Patterson, MIS Senior Engineer

2PM James Strassmaier, Oral Historian

2:30PM Sue Seyl, Director of Image Collections, Richard Yost, Imaging Technician, Mandy York, maps and photographs cataloger, Elizabeth Winroth, Maps Librarian, and Mikki Tint, Assistant Photographs Librarian, Evan Schneider, Photographer all from the Photography Department.

Wednesday June 11 1997

Meet with OHS

9AM Todd Welch, Project Archivist

1PM Chet Orliff, Oregon Historical Society Executive Director

Thursday June 12 1997

3PM Examine OHS Web Task Force Minutes and other pertinent documentation

5PM Karen Starr, PORTALS, Director of Network Information

Friday June 13 1997

10AM Seaside Public Library, Reita Fackerell, Director and Paula Clark Project Manager

Monday June 16 1997

9AM Driftwood Public Library, Lincoln City, 801 SW Highway 101, Susan J. Jenkins, Assistant Library Director and Project Manager, and Cataloger and Systems Administrator

Tuesday June 17 1997

Went from Newport to Corvallis in hopes of meeting Charlene Grass but could not connect

Thursday June 19 1997

10AM Bill McCabe, Washington County Government webmaster

1-3PM RITNet Advisory Council at METRO, MLK Blvd.

3-5 Celia Heron, Director of Information and Referral and Webmaster City of Portland Web page

Friday, June 20 1997

1PM Oregon State University, Valley Library, JumpStart Training and Technical Support staff, Government Information Sharing Project, Christine Grasse, Project Manager; Stephen Mosley Research Assistant, Information Services (the technical support coordinator); Judy Cross, Government Documents Librarian; Cheryl Middleton, Life Sciences Librarian and Kerry Otto.

Wednesday, June 25 1997

1PM Exit interview with Jim Kopp, PORTALS interim Executive Director

Appendix P-3

Contacts for the Onsite Evaluation Visit

PORTALS

P.O. BOX 1151, Portland, OR 97207-1151

Phone: (503) 725-3361, 725-5794

Fax: (503) 725-4625

WWW: <http://www.portals.org>

Contacts:

Jim Kopp, Ph.D. <kopp@portals.org> interim Executive Director, Phone: (503) 725-5992 Fax: (503) 725-4625

Karen Starr <kstarr@portals.org> <kstarr@wln.com>, Director of Network Information (503) 725-5049; FAX (503) 725-4625

Resigned

Howard McGinn, Executive Director

Dennis Gilbert <dennis@gst.world.net> Project Systems Programmer

Portland State University (PSU)

Marjorie Enneking, Associate Vice Provost (503) 725-3416

Millard Johnson, Director Network Development (503) 725-5049

Gwenn Newborg, PSU Business/documents Librarian

Judy Ngai, Fiscal on grant (503) 725-5084

Sue Reggiani <reggiani@lib.pdx.edu> (503) 725-4576; (503) 725-4524 Branford Price Millar Library, Portland State University, PO Box 1151, Portland, OR 97207-1151

Multnomah County Library

205 NE Russell Street

Portland, OR 97212-3708

Phone: (503) 248-5123

WWW: <http://www.multnomah.lib.or.us/>

Jeanne Goodrich <jeanneg@nethost.multnomah.lib.or.us> Phone: (503) 248-5492; Fax: (503) 248-5441
Deputy Director/Program Administrator, Multnomah County Library

Donna Reed <donnare@nethost.multnomah.lib.or.us> <donnare@pub.multnomah.lib.or.us> (503) 248-5238, Fax: (503) 248-5226 Community Information System Program Specialist

Brian Williams <brianw@nethost.multnomah.lib.or.us>; Fax: (503) 248-5226 Manager, Automated Systems, Multnomah County Library, 801 SW 10th, Portland, OR 97205-2597

Oregon Historical Society
1200 SW Park Avenue
Portland, OR 97205-2483
Phone: (503) 222-1741
Fax: (503) 219-2040
(503) 221-2035

Barbara Abrams <Barbaraa@ohs.org>, Project Navigator (Deputy Director for Operations and Programs)

James R. Blackaby <jblackaby@ushmm.org> Visiting faculty, University of Victoria, President of J.R. Blackaby

Christine Bostick <chrisb@ohs.org> (503) 306-5217, MIS Director (computers, network) and Communications Manager (phone, fax, pagers)

Steve Hallberg, Chief Cataloger

Richard Jost <richardj@ohs.org> (503) 306-5252, Imaging Technician

Jim Labosier, Maps Assistant

John Mead <Johnm@ohs.org> Director of Reference and Research Collections

Chet Orloff <cheto@ohs.org> (503) 306-5201, Executive Director

Dwight Patterson, MIS Senior Engineer

Beth Sandore <sandore@uiuc.edu> Coordinator for Imaging Projects, Associate Professor of Library Administration, University of Illinois

Evan Schneider, Photographer

Sue Seyl <susans@ohs.org>, (503) 306-5250; Director of Image Collections (Photograph Librarian)

James Strassmaier Oral Historian

Mikki Tint Assistant Photographs Librarian

Todd Welch <toddw@ohs.org>, (503) 306-5247; Project Archivist (Manuscripts)

Kris White <krisw@ohs.org> (503) 306-5247, Director of Archival Collections

Marsha Williams <Marsham@ohs.org>, Director of Museum Collections

Elizabeth Winroth Maps Librarian

Oregon State Library
State Library Building
250 Winter St NE
Salem, OR 97319-0640
Phone: (503) 378-4243
Fax: (503) 588-7119

Merrialyce Blanchard <merrialyce.k.blanchard@state.or.us> (503) 378-4198 ext. 244, Consultant,
Oregon Index

Rushton Brandis <rushton.g.brandis@state.or.us> (503) 378-2112 x224 Network Development
Consultant, Library Development Services Division, Key Liason

Mike Freese, State Printer, Printing Plant, OR Dept of Administrative Services, 550 Airport Road SE,
Salem, OR 97310

Arturo J. Guillen <Arturo.J.GUILLEN@state.or.us> Assistant to Automated Systems Administrator

Vicki J. Howe <Vicki.J.HOWE@state.or.us>, Oregon Index indexer

Ernest Perez <ernest.r.perez@state.or.us> (503) 378-4243, ext. 257 Automated Systems Administrator,
Key Liason

Jim Scheppke <jim.b.scheppke@state.or.us>, State Librarian

Scott Smith, Information Systems Coordinator, Strategic Planning & Review, Department of
Administrative Services, 955 Center St. NE, Rm 470, Salem OR 97310

Roy C. Turnbaugh, State Archivist, Oregon State Archives, 800 Summer St NE, Salem OR 97310

JumpStart Libraries

Driftwood Public Library, Lincoln Square, 801 SW Highway 101, Suite 201, P.O. Box 50, Lincoln City,
OR 97367-2720 (541) 996-1253, 996-2277 Fax: (541) 996-1262 Susan J. Jenkins <sjenkins@wcn.net>,
Assistant Library Director and Project Manager; Yueh-lin Chen, Cataloger and systems person; Patricia
Heringer, Director

Seaside Public Library, 60 North Roosevelt Blvd., Seaside, OR 97138-6887; Reita Fackerell, Director
(503) 738-6742 <rfackere@ednet.osl.or.gov>, Paula Clark Project Manager Fax: (503) 738-5514

Government Information Sharing Project

Judy Cross <crossj@ccmail.orst.edu>, Government Documents Librarian, Oregon State University,
Valley Library, Corvallis, OR 97331-4501

Charlene Grass <grassc@ccmail.orst.edu>, Associate University Librarian for Technical Services,
JumpStart and Government Information Sharing Project Manager, Oregon State University, 421C Valley
Library, Corvallis, OR 97331-4501 Phone: (541) 737-7302

Cheryl Middleton <middletc@ccmail.orst.edu>, Life Sciences Librarian, Oregon State University,
Valley Library, Corvallis, OR 97331-4501

Stephen Mosley <mosleys@ccmail.orst.edu>, Research Assistant, Information Services, Oregon State University, 121 Valley Library, Corvallis, OR 97331-4501 Phone: (541) 737-4514 Fax: (541) 737-3453

Department of Education

Christina Dunn <cdunn@inet.ed.gov> Director, Discretionary Programs Division, Library Programs Office, Department of Education, Room 300, 555 New Jersey Avenue NW, Washington, DC 20208-5571, Phone: (202) 219-2299

Others Participants

Bit by Bit Computer 9203 SWNimbus Drive Beaverton (Mike) (503) 520-0218 (800) 248-2924

Celia Heron, City of Portland <cheron@ci.portland.or.us> (503) 823-3044

Bill McCabe Washington County <bill_mccabe@co.washington.or.us> (503) 681-2830, 6488721; 155 North 1st Avenue, Hillsboro, OR

Chuck McClure <cmclure@mailbox.syr.edu> Evaluation Consultant (315) 443-2748

Joe Ryan <jryan@mailbox.syr.edu> Onsite Evaluator

PORTALS EVALUATION APPROACH DRAFT

Charles R. McClure
February 19, 1996

Introduction

The evaluation design for the Portals' project has been developed in light of the original proposal, discussions with project participants, and changes that have occurred with Portals and with proposed project activities since the project was funded by the U.S. Department of Education. The environment in which this project operates is dynamic and information technology is constantly changing. Thus, some modifications with both the project activities and the evaluation approach have been done and are represented in this document.

The original objectives of the project are:

1. Design a strong modular architecture rooted in a client-server approach and distributed processing technology that accommodates remote site access and limitless growth in the development of new information modules and services.
2. Develop prototype information modules for delivering electronic Federal, state agency, local agency, and state and local archival and historical information and services.
3. Test a high band-width network technology and multi-media display capability that is easy to use and best meets user information needs.
4. Provide users with a range of assistance and support in using the system and information/services programs developed.
5. Perform an ongoing evaluation that measures our success at achieving project objectives, assesses the program and services modules, provides summative information to gauge the overall success of the project, and formative information to improve performance during the project.

The original proposal described aspects of the evaluation that included the following objectives:

- Assess the degree to which the project programs accomplished stated objectives as outlined in the proposal.
- Identify factors that contributed to the success and the limitations of the services and programs in particular settings.
- Obtain assessments from the users of the programs as to:

- the appropriateness of the services provided
 - the ease of use of the services
 - the timeliness and usefulness of the information provided
 - the "help" and "support" provided to the users in their use of the programs and services
 - suggestions to improve the programs and its services.
- Compare the relative costs of establishing and operating the programs as compared to the benefits resulting to the users.
 - Assess the appropriateness of the Federal information resources used in the project.
 - Determine the success of project collaboration efforts among the organizations participating in the project and in the development and operation of the programs.
 - Assess the reliability of the network and the technical support for the services and programs.

The original project proposal noted that "the evaluation objectives may be identified as the project unfolds and actual methodology is developed. But overall, it is essential to learn which factors contribute to the success of the statewide network, what types of services and programs are most successful for what types of audiences, and what types of information services and products best meet user information needs."

Throughout the evaluation, six criteria will be used to shape the evaluation and provide a basis for addressing the evaluation objectives outlined above:

- Extensiveness: this is a measure of the amount or extent to which the services are provided, e.g., the number and types of people using a particular service.
- Efficiency: this is a measure of the cost or resources required to provide the service, e.g., cost per service transaction.
- Effectiveness: an effectiveness measure is one that focuses attention on "how well" or the quality with which a service or activity is done, e.g., percentage of transactions that satisfactorily met user information needs.
- Impact: an impact measure focuses attention on the benefit or result of the service or activity, e.g., the degree to which using a particular service empowered the user to resolve other problems or improved his/her quality of life.

- Usefulness: this is a measure of appropriateness, that is, the degree to which the services are useful or appropriate for the individual user, e.g., percentage of services of interest to different types of user audiences.
- Services Quality: this is a measure of the degree to which the project's services and programs are accurate, timely, and are presented to users in an effective manner, e.g., ~~users'~~ assessment of the accuracy of the information presented on the community net.

There are six key areas for project evaluation. The first is accomplishment of overall project objectives and project level services/activities. The remaining five are and an evaluation of each of the five service modules described in the original proposal.

It should be emphasized that the evaluation component focuses on the uses, impacts, strengths and weaknesses of the activities in the project modules. This evaluation does not assess the appropriateness of the technology used/purchased for the project, the degree to which the technology itself contributed to accomplishing project goals and objectives, or the effectiveness and costs of the technology.

The Overall Project

There are a number of different evaluation areas that will be addressed in reviewing the project. Each of these areas are discussed briefly in this section.

Traffic Counts

Each of the following modules anticipates placing a number of services and resources in an online format that can be accessed directly via the Portals Web site. Each of the individual services made available will have traffic counts that provide:

- The number of times the resources or services are "hit" by online visitors.
- The duration of the visit to that particular resource or service.
- An indication of the domain associated with the user's login.

Portals systems operations will be responsible for implementing appropriate "sniffer" software on the main router to produce traffic and use logs which then will be analyzed by the evaluation study team. Key items for analysis are the growth or decline in the use of specific services; which services were accessed more than other services; and patterns of use and access over the period of the project.

Project Team Time Commitment

Beginning January, 1996, all members of the project team [include list of names of those individuals here] will submit a monthly report to Portals indicating the number of hours they committed to project activities. Portals will maintain these logs on a database for analysis by the study team. This aspect of the assessment should allow the evaluation team to assess the degree to which leveraging of resources occurs, e.g., the project award resulted in X hours of in-kind contribution from others to the project.

Before/After Services and System Configuration.

The evaluation should be able to describe the degree to which existing services and system configurations changed to that at the conclusion of the project. Coordinators for each of the modules (and the Portals Sysop) are responsible for describing as of January 1, 1996 the type, extent, and range of services currently being provided; the current configuration of the system; and any other descriptive or statistical detail describing what is in place January, 1996 as a basis for then being able to show the differences that have occurred by the end of the grant. Module coordinators (as well as the Portals Sysop?) then can describe the services and configuration at the end of the project,

Target Audiences

The proposal indicates that the target audiences for the project are virtually everyone. In designing the service within an individual modules it is essential that if the target audience is K-12 students and teachers that it be so-stated. Overall, the project should identify the primary and secondary audiences for the various services to be developed.

Issues of Administrative Policy

Throughout this project it is likely that a number of policy issues in terms of who has access, who can add information to a service, how the services will be updated and by whom, privacy and security concerns, etc. etc. will have to be identified and resolved. These policy issues should cut across the various participants in the project so that they are mutually supportive. A set of "Policy Guidelines" for using the services will need to be developed and maintained at Portals. The evaluation study team will review the policy statements regularly as they evolve.

Project Management

The evaluation study team will regularly review the management of the project in terms of criteria such as: meeting the scheduled project deadlines, coordination and cooperation across members, managing changes in tasking, etc. Specific evaluation techniques include:

- Comparing scheduled versus actual task accomplishments.
- Review of monthly progress reports from each of the module coordinators (to be submitted to Portals project director), to begin with the month of January, 1996.
- Administering surveys to key project personnel obtaining their assessment of the success with which the project is being managed and implemented.

Such evaluation information will be obtained every four months as feedback to Portals management staff.

Replication/Dissemination

A key component of the original proposal was to develop access to services and resources in such a way as that they could be easily replicated by other organizations around the country. Evaluation efforts here include:

- Obtaining assessments from advisory committee members of the degree to which services and information resources could be mounted in their community based on the information provided by Portals.
- Maintaining and providing appropriate documentation and information to other organizations so that they can determine the degree to which the various services might be used in their particular setting.
- The number and types of project briefings, presentations at conferences, written papers and reports, and other items are developed and made available to the larger professional community.

This evaluation criterion suggests the importance of the coordinators for each of the modules to document their project activities, develop written manuals and guides to assist other organizations in the implementation of similar efforts, and to make presentations and write papers for the larger professional community.

Critical Success Factors

Throughout the various modules and services that are designed and implemented, the evaluation will identify "critical success factors" that contributed to the overall success of that particular service. A critical success factor is one that had it not occurred, the service would have failed or would not otherwise been completed successfully. Critical success factors may be related to human, technical, organizational, political, economic, or other aspects of the project. Surveys, focus groups, and/or individual/group interviews with project personnel will identify these critical success factors.

Publicity and Marketing

Portals will be responsible for developing some type of marketing plan. Records will need to be maintained as to the various types of advertisements, marketing efforts, or other types of publicity that inform the public about the project. Surveys can be conducted to determine the degree to which the population in Oregon is knowledgeable about Portals and the degree to which public knowledge increases over the length of the project. Also of interest is to determine the population segments that are not aware of the project and to determine why they are not aware of project services.

Federal Information Module

The original objectives for this module are listed below. Due to the rapid increase in the availability of Federal electronic information and Federal Web sites, these objectives may be modified.

Objectives:

- Develop a WWW and Lynx structure for accessing federal and other government information.
- Mount online, Census data, National Trade Data Bank, National Environmental, Sociological and Economic Data Banks, and Regional Information Resources.
- Deploy a Geographic Information System to present data in a user oriented graphical format.
- Review user satisfaction and refine the system to conform to user needs.

Evaluation Overview

Because details of activities in this particular module are still evolving, aspects of the evaluation of this module can be provided only in broad terms. Key evaluation questions that will be answered, however, may include:

- What is the ease of use and effectiveness of the WWW and Lynx "front-end" that is developed for accessing Federal information resources? What are the trade-offs and benefits/limitations of each type of a front-end?
- How many and what types of Federal information resources were made available to the users?
- What criteria were used for the selection of Federal information resources to be included in this module?
- How do users assess the appropriateness of these Federal information resources? Did project members conduct a needs assessment of users as a basis for determining which Federal resources to make available and what were the findings from this assessment?
- To what degree were Federal information resources and services of a local nature (providing unique and special interest to the Oregon and Northwest community) provided?

Currently, the GIS component of the project is unclear. Project personnel are in the process of describing what this component will be exactly. Evaluation questions and criteria will be developed after that component is clarified.

State Agency Information

Objectives:

- Expand public access to basic state government information files.
- Develop an online state document ordering clearinghouse facility.
- Provide access to government information from rural libraries via the Internet.

Additional objectives related to this module that might be considered are: increase the public's knowledge of state government activities and services; provide citizens with information on how to contact government officials; and promote electronic access to and use of state government electronic information services.

Evaluation Overview

In response to the first objective related to expanding public access to basic state government, some evaluation questions include:

- What criteria were used to identify "basic" state government information files?
- To what degree are there indicators that "public access" was expanded to state government information? For example, can it be shown that selective populations or target groups have public access as a result of these services?
- What specific state information resources and services were made available, how were they selected, and to what degree do they meet user needs?
- What specific groups of users found these sources useful and for what reasons or purposes?

Focus group sessions or interviews with selected state government officials may be conducted to identify impacts, benefits, and problems that resulted to these agencies from being linked electronically to the state's citizens.

The online ordering facility can be assessed unobtrusively once it is in place on a number of user-based criteria including response time, courteousness of the staff, and accuracy of the system; the effectiveness of the process for transferring money electronically will be assessed; the "security and verification procedures" will need to be clarified so that they can be evaluated. In addition, records will need to be maintained as to:

- The number and type of state government documents that were ordered via the system.
- The transaction response time between the receipt of an order and the delivery of the requested publication.

A sample of those individuals who ordered state publications can be surveyed to determine their degree of satisfaction with the service.

Regarding the rural access aspect of this module, a definition as to what constitutes a "rural" community will need to be developed. A typical definition is an unincorporated location or a community with population of 25,000 or less and not in a SMA. Some more specific assessment questions here are:

- How many rural communities were connected to the project at what cost?

- How many “rural participants” used the online connectivity to access any component of the project and what components did they connect to?
- How did “rural participants” assess the usefulness of the resources made available to them?

For this particular module, it may be useful to conduct a number of site visits to rural locations to determine, first hand, how participants are using their connectivity and determining the impacts from such connectivity.

Local Community and Government Information

Objectives

- Provide display and delivery of social government services including consumer health information, full text of agency documents (information, meeting notices, etc.), and calendars.
- Provide searchable access to local government databases included local government service directly and local government personnel phone directory.
- Provide a gateway to local government online services including metro bulletin board, Portland visitors bureau homepage, email to county employees, a gateway to each county agency for public interaction, computer conferencing, and distance learning/training in the use of the system.
- Provide online forms access including park reservations and licenses.

Evaluation Overview

This module also will require more detail as to activities and tasking before the evaluation component can be finalized. A detail of the existing system configuration and the configuration finally developed will depict the changes made (to be done by Portals Sysop). Key evaluation questions to be asked, however, include:

- What and how many social government services and forms were made available?
- How many and what types of users accessed which government services and forms?
- What was the ease with which the services could be accessed by users and to what degree did users find these services appropriate and useful?

- How ~~many~~ users accessed local information via the Portals gateway (RITNet)? What was the ease of use of the gateway and to what degree did ~~users find~~ this gateway to be appropriate and to help them access the desired information?
- To what degree did the community or governmental agencies find it useful to have their agency services or resources available online? What impacts did electronic access have their agencies? Do they think they improved the quality of services or reduced costs?

Throughout this module indicators of the degree to which project staff were able to obtain coordination and support from various community and governmental agencies would be useful. Interviews or focus group sessions with a sample of community groups and agency officials that participated in the project will be conducted. Interviews or focus group sessions with users of this component of the system can identify system strengths and weaknesses.

State and Local Historical/Archival Information

Objectives

- Scan and make available 10,000 maps, original manuscripts and other historical documents and make then available over the Internet.
- Catalog and scan from OHS map collections approximately 500 maps of historical significance.
- Scan and make available photographs documenting the Oregon Country from the earliest to the present.
- Make available online the catalogs and finding aids to its collections of books, serials, and oral histories.
- Create, scan, and make available images of a substantial number of artifacts from its material cultural collections.
- Produce a series of electronic educational packages for Internet access by students in grades 4 - 14 (this is the responsibility of the state library)

The actual number of items to be scanned and digitized may vary from that proposed depending on cost figures -- which are being obtained. Thus, targets for the above objectives may need to be revised.

Evaluation Overview

- How many and what types of information resources were digitized and made available?
- What was the quality of the images as they appeared on the screen under differing levels of connectivity and equipment support?
- How many and what types of users accessed which of the digitized information resources?
- To what degree were appropriate information retrieval standards used to digitize and retrieve the images? Are these standards compatible with other imaging storage and retrieval systems?
- What is the effectiveness of the catalogs and other finding aids that were created to access this digitized images and other resources?
- To what degree are the images and resources that were made available appropriate for users or otherwise found to be useful in their daily tasks?

The last objective in this module is the responsibility of the state ^{on hist soc} ~~library~~. The developers of these educational packages need to develop objectives for the modules so that the evaluation team can determine the degree to which the objectives are accomplished. In addition, key evaluation questions will be:

- How many and what types of educational packages were developed?
- How many and what types of people used these packages?
- Assuming the packages might be available both in print and online, one can compare the use of each type and the degree to which each were found to be useful by participants.
- To what degree were these instructional packages integrated and used by teachers in the various schools? How did the teachers assess the usefulness and value of the instructional packages?

User Support

Portals will develop a "single point of presence" in terms of providing help services for using the various information services and resources to be developed for this project.

Objectives

- Provide user support and training including an online "helpline."
- Emphasize user friendly menus in public interfaces.
- Conduct user education and staff development programs.

Evaluation Overview

The "Helpline" has yet to be designed, specific educational objectives have not be detailed, and evaluation cannot proceed until more specifics are known about it. Likely evaluation questions to be posed, however, include the following:

- How many users have asked what types of questions to the helpline over the course of the project?
- To what degree did users obtain accurate, timely, and useful answers to their questions?
- How many and what types of training sessions were conducted to assist users in using the system?
- To what degree did participants at training sessions find the instruction appropriate, helpful, and useful?
- How many and what types of online help menus are there on the various services?
- To what degree did users find these help screens and menus appropriate, helpful, and useful?
- To what degree were training and educational instruction objectives accomplished?

Some aspects of assessing the helpline lend themselves to unobtrusive testing to determine the degree to which the service is accurate, timely, helpful, and the staff are courteous. Transaction logs of a sample of the actual questions posed to the helpline and the staff's answers can be analyzed by the evaluation study team. Questionnaires to workshop participants can provide an assessment of the quality of workshops and other types of on-site training. "Pop-up" questionnaires on the help screens can also provide information as the quality and usefulness of these screens.

Data Collection Methods

A number of data collection techniques will be used to answer the evaluation questions outlined above. These can be used across the various modules:

- User- and/or surrogate-based tests. Either obtrusive or unobtrusive tests can be done on site or by off site surrogates to assess various aspects of the information services being provided. This can include not only the information itself, but the way it is presented, organized, and linked to other information services.
- User assessments. A key component of the modules is to determine the degree to which the services met user needs, the degree to which the user found the services useful, and the degree to which the services had "impacts" on their daily activities. Focus groups, surveys, and online pop-up questionnaires can be used in this area.
- Anecdotal information and testimonials. There is a use for this type of information and we will devise means to track and record such once the services and resources start to be made available. Such data can be collected from focus group sessions, online suggestion and comment screens, and group/individual interviews.
- Transaction logs. For each of the various modules the Portals Sysop will need to maintain transaction logs that minimally track the number of times a particular service or resource is "hit" or used; an analysis of the types of users hitting the resource [to the degree possible]; amount of time spent on a particular service; patterns of where users move through the services going from one to another, etc.
- Online feedback. Either on a module by module basis or as an overall approach in the Helpline, data will be collected describing user suggestions and comments for improving the services. The Portals Sysop will be responsible for this evaluation component.
- Site visits. For some of the modules, it may be useful to visit specific schools, universities, libraries, or other sites that have been actively involved in using the system. Focus groups, individual/group interviews and other data collection techniques can be incorporated into the site visit.
- Pop-up questionnaires. One technique to assess particular electronic services are "pop-up" screens that appear on particular Web pages or online services. These "pop-up" screens must be short (no more than three questions) and quick. Typically they ask the user to assess this particular page or service.

Once the user has answered or decided not to answer, the screen will not appear again for that particular user.

- Surveys, focus groups, and interviews. Depending on the particular service to be assessed, a print survey, a focus group of key stakeholders, or group/individual interviews can be conducted. Surveys can have low response rates. Focus groups offer a number of benefits as to being able to probe and obtain input from different groups but can require significant preparation time.

This list is not intended to be comprehensive. Rather, it is suggestive of the specific types of data collection that can be employed. Decisions about which types of data collection are best for specific aspects of the modules will be determined once more information about those modules is available.

Schedule

Monthly reports of time commitment by project personnel began January, 1996. The transaction logs for various services and resources is being implemented and will need to be developed for each service as that service becomes available.

The scheduling and development of individual data collection instruments will be done after the project evaluator receives additional detail on the components of each of the modules, additional refinement of this document is accomplished, and the evaluation research assistant has been hired. Eventually there will be a timeline and tasking of which data collection activities will occur when.

DRAFT

January 30, 1997

TO: Howard McGinn
FROM: Chuck McClure
RE: Summary of January 22-23, 1997 Meetings in Portland

During January 22-23, 1997 McClure traveled to Portland and met with the Portals staff (Howard, Dennis, and Karen), staff at the Oregon Historical Society (OHS), a representative from the State Library (Ernest); and staff from the Multnomah County Library regarding the various modules contained in the Department of Education (DoE) grant known as Hatfield I. The purpose of this memo is to (1) briefly summarize the meetings and topics discussed, and (2) record key decisions made regarding the completion of the project.

January 22: Meeting with OHS

Howard and Chuck spent the morning of January 22 at the OHS. We began by meeting with OHS staff who have been involved on the project -- ten people, the lead person being Sue Seyl. Chuck opened the meeting by providing an overview of the current project status. The major points Chuck stressed at the meeting were:

- Evaluation Research Assistant. Despite a major effort on the part of Howard and Chuck during the past six months, we had not been able to hire an evaluation research assistant locally. Thus, no on-site data collection activities such as focus groups, etc. had been done to date or would be done in the foreseeable future.
- Emphasis on Self-assessment and Reporting. Due to the inability to hire a research assistant, the evaluation strategy would shift to emphasize more self-assessment and reporting on project activities by the key participants in the project, i.e., Portals, OHS, State Library, and Multnomah County Library. In effect, the originally proposed evaluation (dated February, 1996) would be modified considerably.
- Changes in Project Objectives/Activities. For a host of reasons, some of the proposed project objectives/activities would need to be eliminated or modified. For example, new technologies and knowledge that was not present when the project was proposed affected what needs to be done or what can be done. It was important to identify those NOW and explain the changes in the status report (see below) and to report these to DoE.
- Responsibilities for Self-assessment. OHS (with Sue taking the lead) would be responsible for developing a 5 page status report (with appropriate and numerous appendices) describing:

- project activities and accomplishments to date -- especially in terms of accomplishing the original objectives as outlined in the proposal and noting changes to the original objectives.
- current status of work on the project.
- next steps to be taken.
- assessment of the project in terms of extensiveness, efficiency, effectiveness, and impact; especially important is to include statistics of work done -- counts of items disseminated, items cataloged, items made available on the web, time committed to the project by staff, costs, etc. ; testimonials and anecdotes or success stories; presentations; in-kind contributions from OHS, and activities related to dissemination of findings or products or information related to the project.
- lessons learned, thus far, from the project -- lessons that might help others who are considering doing similar activities.

Chuck asked that he receive these status reports by Friday, February 7, 1997.

Sue, et. al. then toured Howard, Karen, and Chuck through OHS work areas where we reviewed the OHS Website and the content that is being developed for that site. We discussed a range of topics and issues related to their work on putting maps, images, photographs, and other information up on their Website. Overall, OHS is making excellent progress on developing this site and moving print based information into digital format.

We also reviewed the various work forms, data entry forms, and other code/software that Richard and Todd developed. Chuck recommended that a product that should be made available to others from their work was a CD that had all these forms and software so that others digitizing maps, photographs, etc., would not have to reinvent the wheel. Howard agreed to work with Sue on obtaining support either through this grant or a later Hatfield grant to purchase a CD presser so that such could be done.

We next visited the photolab where they demonstrated the use of a magnetic board as part of the process for digitizing photographs for the Website. They also described the off-site facility used for larger photographs and maps.

The visit concluded by meeting with Chet Orloff (attended by Sue, Karen, Chuck, and Howard). Chuck told Chet that OHS had been making good progress on project activities. We also discussed additional possible funding sources for project activities. Chuck identified and described a number of possible programs and offered to provide Chet with electronic introductions or follow-up information to folks at these sources [these have since been done by Chuck].

Overall, we came away from this site visit to OHS with a very positive perspective regarding this module. OHS staff have been making excellent progress in digitizing a range of archival information to be posted on their Website; their Website is beginning to take form and is under development with the likelihood of being made public in the near future; they have a very enthusiastic attitude toward the project and are committed and very interested in their work; the administrator of OHS is very supportive and engaged in the project; and they are learning a great deal about developing a Website with a range of digitized information resources.

January 22: Afternoon Sessions at Portals

We touched on a number of issues and topics during the afternoon of January 22 at Portals with Howard, Karen, and Dennis. The most significant topics and decisions were the following:

- Federal Information Component. The federal information component as outlined in the original grant has been largely superseded by events. A number of excellent Federal Web locators are up and available on the net and need not be duplicated by the project. Thus, the homepage for the federal information resources on the Portals page should be a pointer to those locators and selected other key sources with annotations.

Purchase of discreet federal databases or licensing of those databases (such as Stat-USA) would be continued rather than purchase and mounting of government CDs -- many of which are available via federal websites.

The homepage for the federal information on Portals should be re-worked to provide links to federal locators, made a bit more user-friendly, and link to other federal collections or note appropriate federal information at Portals member libraries.

In terms of a specific training component for this aspect of the project we discussed the possibility of some Web-based instructional guides or directions to some such guides on the net being provided on the homepage. Given the evolution of the Federal Webpage component of the project, Howard believed it to be unlikely that "training modules" would be developed for use of Federal information on Websites.

Regarding administration of this component, Karen should become more directly involved in revised the homepage and making links. Since a number of aspects of this module have been superseded by events, it is unclear if the originally proposed advisory committee, etc., is needed except for informal feedback and comments.

- GIS Component. Apparently, the GIS component described in the original proposal was never intended for inclusion. The purpose of this component vis a vis other project activities is unclear. At the time of proposal submission, this component was based on a project then in process which may or may not have come to fruition. Howard will check with others at PSU about this proposed component and indicate in the letter to the DoE the changes to be made.
- User Services, Training, and User Feedback. There are a number of instances in the original proposal that refer to user-based feedback, training, etc. Specific attention will be given by Karen to redesigning the Federal Web portion of the Portals Website to be more "user friendly." This may also include some structured techniques to obtain user assessment of the Portals Website and more particularly the Federal homepage.

In terms of developing training and user support services. We discussed the possibility of establishing a "virtual help desk" where users could leave questions or ask reference questions electronically to a network of reference librarians within the Portals membership. Karen will explore this possibility in greater detail.

- Evaluation Component. Chuck proposed a number of options to Howard regarding strategies to evaluate the project given the fact that we had not been able to hire anyone as the Evaluation Research Assistant. After considerable discussion and weighing the trade-offs, we decided to:
 - not continue looking for an on-site assistant given the results of past efforts and because the start-up time and level of effort to get someone up to speed would be excessive at this point in the project.
 - propose to Joe Ryan, a doctoral student at Syracuse University who has worked with Chuck on a number of similar projects -- and worked with Howard when he was state librarian in North Carolina -- to conduct an on-site evaluation later in the project.

Chuck would propose to Joe to come to Portland and conduct site visits, focus groups, and other data collection activities the end of June, 1997. This 10 day visit would serve as the major evaluation effort. He would also commit another 10 days of consulting in preparation for the visit and in writing up the report of the visit. The 20 days consulting at \$300 per day plus a maximum of \$2000 for travel would be a \$10,000 expenditure *instead* of that originally budgeted for the evaluation assistant. Chuck will discuss this proposal with Joe upon his return to Syracuse. Any additional negotiation regarding fees and time would be done directly between Joe and Howard.

- increase Chuck's commitment to the project during the Months of February - September to continue ongoing evaluation consulting, help in the design of the June assessment and final report writing which would have been done by the research assistant but will now be done by Joe. Chuck estimates that he will need *a total of 14 days for February - September*, assuming Joe is hired and assuming two more trips for Chuck to Portland (three trips are currently budgeted).

In fact, these changes in the evaluation approach will result in *less* total expenditures within the evaluation component and still result in adequate evaluation information and reporting for the project. Howard will include these changes in his report to DoE as part of overall changes in project activities and objectives.

January 23: Morning Session

During the morning of January 23 we conducted a meeting at PSU attended by a representative of the state library, Ernest Perez, and three staff from OHS, Sue, Richard, and Todd. Dennis, Karen, and Howard also attended the meeting. This meeting had a number of objectives which will be discussed below.

A first objective was for Chuck to brief Ernest on the current status of the project and the need for the state library to develop a status report. Basically, Chuck reviewed the information that he discussed the previous morning at OHS -- which is summarized on page 1 of this report and will not be repeated here. Ernest agreed to develop the status report as requested.

Secondly, Ernest provided a status report on the degree to which the various objectives for the State Library were being accomplished.

- The state library information system was under development, information was being loaded and made available, some problems with Harvest had delayed the search engine, and additional sources would be mounted.
- The sun workstation was operable and would soon be put to use on a range of activities related to the project.
- For the rural public library project 25 libraries had received equipment and were now connected to the Internet and were provided services. Training had been done by the State Library.
- Centralized access to and ordering/purchase of those publications electronically was under development. The state printer runs this server, a planning and marketing effort was underway as well.

We briefly discussed the key issues related to completing these projects. Overall, the State Library has been doing a good job on these projects and especially with the deployment of the computing equipment and connections to the rural libraries.

Third, Chuck provided a brief tutorial to meeting attendees on the status of the log analysis that we would be using on the Portals, OHS, and State Library Websites. He reviewed the various types of logs that could be used for analysis, how the log statistics would be used for this project, and how the log statistics could be used by Portals, OHS, and State Library for planning and Website development. We expect to analyze Website log files during a specific test period later in the project at all three sites.

We concluded this section with a demonstration by Dennis of various Websites that provided log analysis software and recommended two specific packages that OHS and the state library should examine further to be mounted on their site. The State Library and OHS understood that Dennis would provide moral support but could not actually install this software.

January 23: Lunch with Multnomah County Library Representatives

Howard and Chuck met with Donna Reed and Jeanne Goodrich over lunch to discuss their development of the community information network and issues related to the tatu of this component of the project. Donna and Jeanne brief Howard and Chuck of the impact of Proposition 47 on the library in terms of significant budget cut, staff lay-offs, resource reallocations, and other fall-out.

Chuck briefed Donna and Jeanne about project status and the need for a written status report. Again, the information presented on page 1 of this report was also presented to Donna and Jeanne. Donna agree to develop the report as requested. Donna summarized the status of the development of the community information network, RIT Net. Basically they have the network up and running and a significant amount of very useful content and links.

After lunch we went over to the administrative offices of the library and received a demonstration and tutorial of RIT Net. Details on the content and organization of RIT Net will not be provided here. Those interested may wish to go directly to the Website at <<http://www.multnomah.lib.or.us/>>. Chuck offered a number of suggestions for content and organization regarding the Website. Suffice to say that they have made good progress on this module of the project.

During the discussions regarding Multnomah County Library's involvement in the project it became obvious that they can contributed much to the development of RIT Net beyond that originally proposed. Further, Donna outlined a number of possible enhancements, changes, additions, and new content that could be provided to RIT Net between now and the end of the project.

Howard asked Donna to submit to him a proposal with incremental costs and enhancements for RIT Net that might be done now as part of the project. Based on his review of her proposal, the merits of the enhancements being proposed, and the availability of existing resources, or resources that might be reallocated given other changes that are being made in the project, resources might be made available to RIT Net to implement these enhancements.

There was agreement between Howard and Chuck (later) that enhancing RIT Net activities would be especially appropriate given the spirit of the original proposal and the likelihood that some of the original objectives would not be implemented (see above). This change should be noted and reported to DoE.

January 23: Afternoon Session at Portals

During the afternoon of January 23 McClure met with Howard and also with Dennis and covered a number of topics. These included the following:

- Log Analysis. We discussed at length specific strategies to implement the log analysis software on the Portals Website. The existing software is cumbersome compared to others available. We agreed that Todd would be contacted immediately by Dennis to begin installation of the new log analysis software.

We also discussed in some detail the type of statistics that should be represented on the Website, the need for Howard to have composite access statistics by Portals institution for specific data bases and other services on the Website, and the importance of these statistics both for (1) project usage information , and (2) basic management information for Howard to assess Portals activities and report to his Board.

We agreed that Todd would have lead responsibility for this with oversight by Dennis and that Todd would start on the log analysis project as soon as possible. We expect to have the final version of the Web statistics working on the Website and finalized by April 1. We also agreed that we would use an iterative process of Howard reviewing the representation and presentation of statistics on the Website to produce, eventually, the format and content necessary. Chuck will also review the content and presentation of statistics with Howard.

- Statistics on Deployed Workstations. We discussed the forthcoming deployment and installment of the 14 workstations to Portals member institutions and decided that we would not software or sniffers to keep track of traffic, URLs, time in use, or other statistics from that end. Instead, we discussed the possibility of tracking the degree to which these 14 workstations (through tracking their IP addresses) used the Portals Website. This tracking

could be done once the Portals log analysis software is installed. Specifics of the data we would track from these 14 deployed workstations would be discussed at a later date.

Overview

The two days of meetings were extremely productive. Considerable time was spent on meeting with project participants and reviewing their status regarding project objectives. The site visits confirmed that good efforts were being made on project components. Effort was also dedicated to revising and restructuring aspects of the project in a "mid-course" correction to insure maximum benefit from remaining project resources.

To a large degree, the visit provided formative evaluation from McClure for each of the modules. McClure was able to review the status of project activities, confer with project participants, and suggest strategies to improve project performance and outcomes. Thus, the visit constituted a key component of the overall evaluation methodology.

The one module of the project that required the most attention was the Federal government component. A number of changes and revisions in this aspect of the project were required for a host of reasons -- not the least of which being that a vast amount of Federal information is already available and relatively well-organized on the net. However, the changes to be made (see above) in this component of the project should still assist in making Federal information more accessible to Portals member institutions and others using the Portals Website.

A final important result of the meetings was how to best restructure the evaluation component with one on-site visit by a well-trained and knowledgeable evaluator rather than relying on the on-site Evaluation Research Assistant who we have been unable to hire. While some additional planning and evaluation methods development will be need to implement the strategy decided upon, we believe that the approach will result in collecting important evaluation information.



PORTALS

Portland Area Library System
P.O. Box 1151
Portland, Oregon 97207-1151

March 25, 1997

Ms. Christina Dunn
Director, Discretionary Programs Division
Library Programs Office
U.S. Department of Education
Room 300
555 New Jersey Avenue, NW
Washington, DC 20208-5571

Re: Grant No. R039D50010-95A

Dear Chris,

This letter is in reference to Grant No. R039D50010-95A, "Citizen Access to Government and Other Information". I am writing to request that the following changes in the grant be noted and authorized by your office. The changes listed below were compiled with the assistance of Dr. Charles McClure. Dr. McClure has been engaged by Portland State University as the Chief Evaluator for the grant.

Federal Information Module

NOTE: Charles McClure, in the report of his evaluation visit to PORTALS, January 22 - 23, 1997, noted:

"The federal information component as outlined in the original grant has been largely superseded by events. A number of excellent Federal Web locators are up and available on the net and need not be duplicated by the project. Thus, the homepage for the federal information resources of the PORTALS page should point to those locators and selected other key sources with annotations.

Purchase of discreet federal databases or licensing of those databases (such as Stat-USA) would be continued rather than purchase and mounting of government CDS -- many of which are available via federal websites.

The homepage for federal information on PORTALS should be re-worked to provide links to federal locators, made a bit more user-friendly, and link to other federal collections or note appropriate federal information at PORTALS libraries."

Based on the above, the following changes would be made:

Page 2.

Change permission request:

1. Original: A librarian with documents experience and excellent technical skills will be hired to develop a World Wide Web page (graphical) and Lynx (ASCII) structure for federal, and other government information.

Change: A full time documents librarian would not be hired.

Budget effect: Decrease in salary line item of \$71,050; decrease in benefits line item of \$26,289. Funds will be reprogrammed at a later date. I will notify you about the use of these funds as soon as possible.

2. Original: PORTALS would mount, on-line, "*Census data, National Trade Data Bank, National Environmental, Sociological Data Bank, Regional Economic Information System.*" The files would be stored in CD-ROM format.

Change: Databases would not be mounted online because this work would be duplicative. Web site development of links to major federal information web sites and the purchase of access to appropriate databases (e.g. StatUSA) will replace original plans.

Budget effect: None.

3. Original: PORTALS will deploy a geographical information system to present data in user oriented graphical format.

Change: Development and implementation of a GIS system will not take place. The GIS project was included in the original grant abstract. When the budget revisions were made at the time of the original award, all funding for this component was deleted. However, the GIS project description was not removed from the abstract when the budget revision was submitted. There is no money in the grant to implement this component.

Budget effect: None.

Local Government Information Module

Change: The Multnomah County Library (MCL) has developed a community information web service called "RITNET". But as noted by Dr. McClure in his onsite visit report, "it became obvious that the library can contribute much to the development of RITNET beyond that originally proposed". There was agreement between Dr. McClure and me that enhancing RITNET activities would be especially appropriate given the spirit of the original proposal. I request permission to transfer funds to MCL to carry out these plans.

Page 3.

Budget transfer request: Request permission to transfer funds from the salary budget line item to an increase in the sub-contract with MCL of \$50,000. A specific budget will be submitted if you approve this transfer.

Information System Module - User Support

Original: In his report Dr. McClure noted: "There are a number of instances in the original proposal that refer to user-based feedback, training, etc."

Change: Because of new technology, the following user services programs will be investigated and/or developed. Changes are based on recommendations made by Dr. McClure.

Specific attention will be given by PORTALS staff to redesigning the Federal Web portion of the PORTALS website to be more 'user friendly'. This may also include some structured techniques to obtain user assessment of the PORTALS website and more particularly the Federal homepage.

In terms of developing training and user support services, a "virtual help desk" where users could leave questions or ask reference questions electronically to a network of reference librarians within the PORTALS membership will be developed.

Budget effect: None.

Evaluation Module

Original: An Evaluation Research Assistant will be hired on a .5 FTE basis. This person would be responsible for data collection that would be used to evaluate the project. This person's work would be overseen by Dr. McClure. The grant also created an implementation advisory team.

Change: An Evaluation Research Assistant will not be hired. The implementation advisory committee has not been convened to date.

As outlined by Dr. McClure, the evaluation will be conducted as follows:

1. Self-Assessment and Reporting. Key participants in the project would conduct a self-assessment and report findings on a regular basis to Dr. McClure.

Page 4.

2. Joseph Ryan, a doctoral student at Syracuse University who has worked on a number of similar projects with Dr. McClure (and with me in North Carolina), will be hired to conduct a ten day concentrated evaluation of the project in June 1997. Mr. Ryan would also commit an additional 10 days of consulting to the project for data interpretation and report writing in Syracuse.

3. Dr. McClure would spend up to fifteen additional days on the evaluation process between February and September 1997.

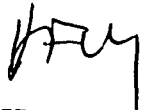
Reason for change: PORTALS and Portland State University conducted regional searches for an Evaluation Research Assistant. The searches were not successful. Thus no on-site data collection such as focus groups, etc. have been done to date or would be done in the foreseeable future.

Budget effect: Decrease in personal services (other) line item of \$7,100.

While the above are programmatic changes, they may or may not affect the budget. At this point I am primarily interested in our receiving clearance to move ahead with programmatic changes. Any changes in budget will be submitted at a later date pending further review.

Please let me know if you have questions.

Sincerely,



Howard F. McGinn
Executive Director

cc: Dr. Charles McClure ✓

Ms. Judy Ngai, Sponsored Projects Administrator, Portland State University.



UNITED STATES DEPARTMENT OF EDUCATION

OFFICE OF THE ASSISTANT SECRETARY
FOR EDUCATIONAL RESEARCH AND IMPROVEMENT

MAR 27 1997

Dear Howard:

I received your letter dated March 25, 1997 concerning grant # R039D50010-95A, "Citizen Access to Government and Other Information."

I concur with Chuck McClure's findings regarding the federal information component and the RITNET contribution to the project.

As you will not be developing a WWW page and Lynx structure for federal and other government information, you do not have to hire the documents librarian as called for in the original proposal. Funds budgeted for this purpose (\$71,050 from the salary line item and \$26,289 from the benefits line item) should be moved to other budget lines.

I understand that mounting certain online databases (Census Data, National Trade Data Bank, National Environments, Sociological Data Bank, Regional Economic Information System) would be duplicative. It is appropriate to replace this approach by providing Web site development of links to major federal information Web sites and by purchasing access to appropriate databases. While this may not change budget expenditures, if it causes changes in line items, you will need to clear that with this office.

I have noted for the record that the GIS project which was included in the original grant proposal, was deleted in the original budget revisions. I understand that funds are no longer earmarked to implement this component.

You may use grant funds to support the Multnomah County Library's RITNET; the \$50,000 cited seems reasonable for this activity. Since you are reducing expenses under the Salaries line item, it seems reasonable to use such funds for this activity. As this will probably result in changes in line items, you will need to clear those changes with this office.

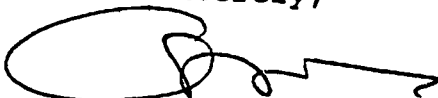
Also, it makes good sense to redesign the Federal Web portion of the PORTALS Website to make it more user friendly. The virtual help desk sounds like a good approach. Since this will not affect the budget, you may undertake this activity.

Changing the evaluation strategy as Chuck McClure suggested should not change the quality or content of the evaluation. You may make the change as requested. I understand that the change will result in a decrease in the personal services (other) line

item by \$7,100.

The programmatic changes outlined in your letter are acceptable. Once you decide how certain funds will be spent, send me a revised budget demonstrating the changes.

Sincerely,

A handwritten signature in black ink, appearing to be "Chris Dunn", with a large loop at the start and a long horizontal stroke extending to the right.

Chris Dunn
Director, Discretionary Program
Library Programs Office

March 25, 1997

Ms. Christina Dunn
Director, Discretionary Programs Division
Library Programs Office
U.S. Department of Education
Room 300
555 New Jersey Avenue, NW
Washington, DC 20208-5571

Re: Grant No. R039D50010-95A

Dear Chris,

This letter is in reference to Grant No. R039D50010-95A, "Citizen Access to Government and Other Information". I am writing to request that the following changes in the grant be noted and authorized by your office. The changes listed below were compiled with the assistance of Dr. Charles McClure. Dr. McClure has been engaged by Portland State University as the Chief Evaluator for the grant.

Federal Information Module

NOTE: Charles McClure, in the report of his evaluation visit to PORTALS, January 22 - 23, 1997, noted:

"The federal information component as outlined in the original grant has been largely superseded by events. A number of excellent Federal Web locators are up and available on the net and need not be duplicated by the project. Thus, the homepage for the federal information resources of the PORTALS page should point to those locators and selected other key sources with annotations.

Purchase of discreet federal databases or licensing of those databases (such as Stat-USA) would be continued rather than purchase and mounting of government CDS -- many of which are available via federal websites.

The homepage for federal information on PORTALS should be re-worked to provide links to federal locators, made a bit more user-friendly, and link to other federal collections or note appropriate federal information at PORTALS libraries."

Based on the above, the following changes would be made:

Page 2.

Change permission request:

1. Original: A librarian with documents experience and excellent technical skills will be hired to develop a World Wide Web page (graphical) and Lynx (ASCII) structure for federal, and other government information.

Change: A full time documents librarian would not be hired.

Budget effect: Decrease in salary line item of \$71,050; decrease in benefits line item of \$26,289. Funds will be reprogrammed at a later date. I will notify you about the use of these funds as soon as possible.

2. Original: PORTALS would mount, on-line, "*Census data, National Trade Data Bank, National Environmental, Sociological Data Bank, Regional Economic Information System.*" The files would be stored in CD-ROM format.

Change: Databases would not be mounted online because this work would be duplicative. Web site development of links to major federal information web sites and the purchase of access to appropriate databases (e.g. StatUSA) will replace original plans.

Budget effect: None.

3. Original: PORTALS will deploy a geographical information system to present data in user oriented graphical format.

Change: Development and implementation of a GIS system will not take place. The GIS project was included in the original grant abstract. When the budget revisions were made at the time of the original award, all funding for this component was deleted. However, the GIS project description was not removed from the abstract when the budget revision was submitted. There is no money in the grant to implement this component.

Budget effect: None.

Local Government Information Module

Change: The Multnomah County Library (MCL) has developed a community information web service called "RITNET". But as noted by Dr. McClure in his onsite visit report, "it became obvious that the library can contribute much to the development of RITNET beyond that originally proposed". There was agreement between Dr. McClure and me that enhancing RITNET activities would be especially appropriate given the spirit of the original proposal. I request permission to transfer funds to MCL to carry out these plans.

Budget transfer request: Request permission to transfer funds from the salary budget line item to an increase in the sub-contract with MCL of \$50,000. A specific budget will be submitted if you approve this transfer.

Information System Module - User Support

Original: In his report Dr. McClure noted: "There are a number of instances in the original proposal that refer to user-based feedback, training, etc."

Change: Because of new technology, the following user services programs will be investigated and/or developed. Changes are based on recommendations made by Dr. McClure.

Specific attention will be given by PORTALS staff to redesigning the Federal Web portion of the PORTALS website to be more 'user friendly'. This may also include some structured techniques to obtain user assessment of the PORTALS website and more particularly the Federal homepage.

In terms of developing training and user support services, a "virtual help desk" where users could leave questions or ask reference questions electronically to a network of reference librarians within the PORTALS membership will be developed.

Budget effect: None.

Evaluation Module

Original: An Evaluation Research Assistant will be hired on a .5 FTE basis. This person would be responsible for data collection that would be used to evaluate the project. This person's work would be overseen by Dr. McClure. The grant also created an implementation advisory team.

Change: An Evaluation Research Assistant will not be hired. The implementation advisory committee has not been convened to date.

As outlined by Dr. McClure, the evaluation will be conducted as follows:

1. Self-Assessment and Reporting. Key participants in the project would conduct a self-assessment and report findings on a regular basis to Dr. McClure.

Page 4.

2. Joseph Ryan, a doctoral student at Syracuse University who has worked on a number of similar projects with Dr. McClure (and with me in North Carolina), will be hired to conduct a ten day concentrated evaluation of the project in June 1997. Mr. Ryan would also commit an additional 10 days of consulting to the project for data interpretation and report writing in Syracuse.

3. Dr. McClure would spend up to fifteen additional days on the evaluation process between February and September 1997.

Reason for change: PORTALS and Portland State University conducted regional searches for an Evaluation Research Assistant. The searches were not successful. Thus no on-site data collection such as focus groups, etc. have been done to date or would be done in the foreseeable future.

Budget effect: Decrease in personal services (other) line item of \$7,100.

While the above are programmatic changes, they may or may not affect the budget. At this point I am primarily interested in our receiving clearance to move ahead with programmatic changes. Any changes in budget will be submitted at a later date pending further review.

Please let me know if you have questions.

Sincerely,

Howard F. McGinn
Executive Director

cc: Dr. Charles McClure

Ms. Judy Ngai, Sponsored Projects Administrator, Portland State University.

Instructions

Jumpstart Grant Application*Line-by-line Instructions*

1. Applicant
Enter the full legal name of the applicant library, system or other agency.
2. Address
Enter the mailing address, city and zip code of the applicant.
3. Contact
Enter the name of the person responsible for the application who may be contacted for further information or clarification. This person need not be the intended project manager or the library director.
4. Project manager
A project manager must be designated at the time the application is submitted. The project manager is the person who will be responsible for seeing that the objectives of the project are met. Project managers must sign the certification form (Appendix B) to indicate their acceptance of the responsibilities of Jumpstart project managers.
5. Fiscal agent
If the fiscal agent for the project is different from the applicant, enter the name, address, contact person, and phone of this agency. An official of the fiscal agent must certify the willingness of their organization to adhere to the conditions of the grant (see #10 below).
6. Target area
Indicate the geographic area to be served by the project. This will likely be one or more cities, counties or portions of counties. Use the names of the cities and/or counties to describe the project service area (Example: "Polk, Yamhill, and Marion Counties"; "Newport and surrounding areas in Lincoln County"; "La Grande, Pendleton, Hermiston and Baker")
7. Estimated number of persons served
Estimate the number of persons that will actually be served by the project. Do not use the total estimated population of the service area, but only the persons that you estimate will be directly served by the project.
8. Assessment of needs and objectives of the grant project
Briefly discuss why a Jumpstart grant is needed to provide the library with Internet connectivity. Describe the needs that library customers have for access to the Internet and how the grant might provide broader benefits to the community. Then describe how the library will use the equipment and Internet service provided by the grant. What sorts of training and orientation sessions will be offered for potential users? Where will the equipment be located in the library and how will its availability be publicized in the community? What objectives will the library set for the 12 months of the grant project?
9. Continuation of the project
Briefly describe how the library intends to continue with Internet services beyond the 12 month period of the grant. How will the cost of the Internet connection be borne by the library? How will maintenance of hardware and software be provided for? Will the library continue to offer training and support for library customers in using the service?
10. Certification of the fiscal agent
An individual vested with the authority to enter into contracts for the fiscal agent (e. g., city, county, school district) must certify his/her knowledge of the application, the validity of its contents, and understanding of the terms of the grant award.

PLEASE CALL BOBBY ARVIZU AT THE STATE LIBRARY (378-2112, Ext. 254) IF YOU HAVE QUESTIONS OR NEED CLARIFICATION OF THESE INSTRUCTIONS.

Date Received _____

Application Number _____

OREGON STATE LIBRARY

Appendix A

Jumpstart Grant Application

(This form may be replicated on a microcomputer, but may not exceed two pages in length)

1. Applicant: _____
2. Address: _____
3. Contact person: _____ Phone: _____
4. Project manager (if different from contact person):
_____ Phone: _____
5. Fiscal Agent (if different from applicant):
Name and address: _____
Contact person: _____ Phone: _____
6. Description of target area to be served by the project:
7. Estimated number of persons served by the project: _____
8. Briefly describe, in the space provided, how the Jumpstart grant would assist the library in meeting the needs of library customers/community members. What specific objectives/activities would be supported by the Jumpstart grant?:

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 Oregon State University Library,
 and
 PORTALS - Portland Area Library System

Library Services and Construction Act
 Higher Education Act

Grant Activities Report

1 Monthly Report # (1-12)

OREGON JUMPSTART LIBRARY: Seaside Public Library
 Grant Project Number: 3-95-4.3 (a) 29

Date Submitted: May 1, 1996

Submitted By: Paula Lee Clark

1. Report the number of search sessions conducted. A session is one person (staff or public) searching on the Jumpstart workstation between observable start and stop times. (You need not report the amount of time in each session.)

155

2. Report the number of connect hours per month. (This can be obtained from your Internet service provider.)

180

3. Report the number of presentations to promote the service.

business 1 government 2 school 1

community groups (Elks, etc) _____

4. Report the total audience number at all presentations combined. 30
 (This is to be counted by library or project presenters.)

5. Report the number of public instruction hours. (This is to be counted by library or project trainers.)

individual 103 group 0

6. Include copies of press releases issued with this report.
7. Include copies of media coverage gained. Examples are copies of articles, date/time of radio/tv coverage, and newsletters.
8. Include success stories, particularly for those who obtain information from the government databases. Get permission to use the patron's story, using the accompanying form.

76

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Grant Activities Report

2 Monthly Report # (1-12)

OREGON JUMPSTART LIBRARY: Seaside Public Library

Grant Project Number: 3-95-4.3 (a) 29

Date Submitted: June 4, 1996

Submitted By: Paula Lee Clark

1. Report the number of search sessions conducted. A session is one person (staff or public) searching on the Jumpstart workstation between observable start and stop times. (You need not report the amount of time in each session.)

101

2. Report the number of connect hours per month. (This can be obtained from your Internet service provider.)

133

3. Report the number of presentations to promote the service.

business _____ government _____ school 1 Middle School

community groups (Elks, etc) _____ Radio: KSWB May 14, 1996

4. Report the total audience number at all presentations combined. 1600
(This is to be counted by library or project presenters.)

5. Report the number of public instruction hours. (This is to be counted by library or project trainers.)

individual 50

group 0

6. Include copies of press releases issued with this report.

7. Include copies of media coverage gained. Examples are copies of articles, date/time of radio/tv coverage, and newsletters.

8. Include success stories, particularly for those who obtain information from the government databases. Get permission to use the patron's story, using the accompanying form.

92

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Grant Activities Report

3 Monthly Report # (1-12)

OREGON JUMPSTART LIBRARY: Salem Public Library
Grant Project Number: 3-95-4.3 (a) 29

Date Submitted: 7-6-96

Submitted By: Diana Lee Smith

1. Report the number of search sessions conducted. A session is one person (staff or public) searching on the Jumpstart workstation between observable start and stop times. (You need not report the amount of time in each session.)

79

2. Report the number of connect hours per month. (This can be obtained from your Internet service provider.)

107

3. Report the number of presentations to promote the service.

business _____ government _____ school 1
community groups (Elks, etc) _____

4. Report the total audience number at all presentations combined. 9
(This is to be counted by library or project presenters.)

5. Report the number of public instruction hours. (This is to be counted by library or project trainers.)

individual 15 group 3

6. Include copies of press releases issued with this report.

7. Include copies of media coverage gained. Examples are copies of articles, date/time of radio/tv coverage, and newsletters.

8. Include success stories, particularly for those who obtain information from the government databases. Get permission to use the patron's story, using the accompanying form.

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Grant Activities Report

4 Monthly Report # (1-12)

OREGON JUMPSTART LIBRARY: Seaside Public Library
Grant Project Number: 3-95-4.3 (a)29

Date Submitted: 8-3-96

Submitted By: Paula Lee Clark

1. Report the number of search sessions conducted. A session is one person (staff or public) searching on the Jumpstart workstation between observable start and stop times. (You need not report the amount of time in each session.)

73

2. Report the number of connect hours per month. (This can be obtained from your Internet service provider.)

120

3. Report the number of presentations to promote the service.

business _____ government _____ school _____
community groups (Elks, etc) _____

4. Report the total audience number at all presentations combined. _____
(This is to be counted by library or project presenters.)

5. Report the number of public instruction hours. (This is to be counted by library or project trainers.)

individual 10 group _____

6. Include copies of press releases issued with this report.

7. Include copies of media coverage gained. Examples are copies of articles, date/time of radio/tv coverage, and newsletters.

8. Include success stories, particularly for those who obtain information from the government databases. Get permission to use the patron's story, using the accompanying form.

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Higher Education Act

August 1996

Grant Activities Report

5 Monthly Report # (1-12)

OREGON JUMPSTART LIBRARY: Seaside Public Library
Grant Project Number: 3-95-4.3 (a)29

Date Submitted: 9-7-96

Submitted By: Paula Lee Clark

1. Report the number of search sessions conducted. A session is one person (staff or public) searching on the Jumpstart workstation between observable start and stop times. (You need not report the amount of time in each session.)

94

2. Report the number of connect hours per month. (This can be obtained from your Internet service provider.)

132

3. Report the number of presentations to promote the service.

business _____ government _____ school _____
community groups (Elks, etc) _____

4. Report the total audience number at all presentations combined. _____
(This is to be counted by library or project presenters.)

5. Report the number of public instruction hours. (This is to be counted by library or project trainers.)

individual 10 group _____

6. Include copies of press releases issued with this report.

7. Include copies of media coverage gained. Examples are copies of articles, date/time of radio/tv coverage, and newsletters.

8. Include success stories, particularly for those who obtain information from the government databases. Get permission to use the patron's story, using the accompanying form.

Sept '96

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Higher Education Act

Grant Activities Report

6 Monthly Report # (1-12)

OREGON JUMPSTART LIBRARY: Seaside Public Library

Grant Project Number: 3-95-4.3 (a)29

Date Submitted: _____

Submitted By: Paula Lee Clark

1. Report the number of search sessions conducted. A session is one person (staff or public) searching on the Jumpstart workstation between observable start and stop times. (You need not report the amount of time in each session.)

90

2. Report the number of connect hours per month. (This can be obtained from your Internet service provider.)

132

3. Report the number of presentations to promote the service.

business 2 ~~reservations~~ government _____ school _____

community groups (Elks, etc) workshop - 6

4. Report the total audience number at all presentations combined. _____
(This is to be counted by library or project presenters.)

5. Report the number of public instruction hours. (This is to be counted by library or project trainers.)

individual 10 group _____

6. Include copies of press releases issued with this report.

7. Include copies of media coverage gained. Examples are copies of articles, date/time of radio/tv coverage, and newsletters.

8. Include success stories, particularly for those who obtain information from the government databases. Get permission to use the patron's story, using the accompanying form.

October 96

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Grant Activities Report

7 Monthly Report # (1-12)

OREGON JUMPSTART LIBRARY: Seaside Public Library

Grant Project Number: 3-95-4.3 (a)29

Date Submitted: 11-7-96

Submitted By: Paula Lee Clark

1. Report the number of search sessions conducted. A session is one person (staff or public) searching on the Jumpstart workstation between observable start and stop times. (You need not report the amount of time in each session.)

136

2. Report the number of connect hours per month. (This can be obtained from your Internet service provider.)

185

3. Report the number of presentations to promote the service.

business 0 government 0 school 0

community groups (Elks, etc) 0

4. Report the total audience number at all presentations combined. 0
(This is to be counted by library or project presenters.)

5. Report the number of public instruction hours. (This is to be counted by library or project trainers.)

individual 15

group 0

6. Include copies of press releases issued with this report.

7. Include copies of media coverage gained. Examples are copies of articles; date/time of radio/tv coverage, and newsletters.

8. Include success stories, particularly for those who obtain information from the government databases. Get permission to use the patron's story, using the accompanying form.

November
1996

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Grant Activities Report

8 Monthly Report # (1-12)

OREGON JUMPSTART LIBRARY: Seaside Public Library

Grant Project Number: 3-95-4.3 (a)29

Date Submitted: 12-05-96

Submitted By: Paula Lee Clark

1. Report the number of search sessions conducted. A session is one person (staff or public) searching on the Jumpstart workstation between observable start and stop times. (You need not report the amount of time in each session.)

119

2. Report the number of connect hours per month. (This can be obtained from your Internet service provider.)

165

3. Report the number of presentations to promote the service.

business _____ government _____ school _____
community groups (Elks, etc) _____

4. Report the total audience number at all presentations combined. _____
(This is to be counted by library or project presenters.)

5. Report the number of public instruction hours. (This is to be counted by library or project trainers.)

Individual 25 group 0

6. Include copies of press releases issued with this report.

7. Include copies of media coverage gained. Examples are copies of articles, date/time of radio/tv coverage, and newsletters.

8. Include success stories, particularly for those who obtain information from the government databases. Get permission to use the patron's story, using the accompanying form.

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Grant Activities Report

9 Monthly Report # (1-12)

OREGON JUMPSTART LIBRARY: Seaside Public Library
Grant Project Number: 3-95-4.3 (a)29

Date Submitted: 1-14-97

Submitted By: Paula Lee Clark

1. Report the number of search sessions conducted. A session is one person (staff or public) searching on the Jumpstart workstation between observable start and stop times. (You need not report the amount of time in each session.)

140

2. Report the number of connect hours per month. (This can be obtained from your Internet service provider.)

196

3. Report the number of presentations to promote the service.

business _____ government _____ school _____
community groups (Elks, etc) _____

4. Report the total audience number at all presentations combined. _____
(This is to be counted by library or project presenters.)

5. Report the number of public instruction hours. (This is to be counted by library or project trainers.)

individual 15 group _____

6. Include copies of press releases issued with this report.

7. Include copies of media coverage gained. Examples are copies of articles, date/time of radio/tv coverage, and newsletters.

8. Include success stories, particularly for those who obtain information from the government databases. Get permission to use the patron's story, using the accompanying form.

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Grant Activities Report

10 Monthly Report # (1-12)

OREGON JUMPSTART LIBRARY: Seaside Public Library

Grant Project Number: 3-95-4.3 (a)29

Date Submitted: 2-1-97

Submitted By: Paula Lee Clark

1. Report the number of search sessions conducted. A session is one person (staff or public) searching on the Jumpstart workstation between observable start and stop times. (You need not report the amount of time in each session.)

175

2. Report the number of connect hours per month. (This can be obtained from your Internet service provider.)

227

3. Report the number of presentations to promote the service.

business _____ government _____ school _____

community groups (Elks, etc) 1

4. Report the total audience number at all presentations combined. 41
(This is to be counted by library or project presenters.)

5. Report the number of public instruction hours. (This is to be counted by library or project trainers.)

individual 16 group _____

6. Include copies of press releases issued with this report.

7. Include copies of media coverage gained. Examples are copies of articles, date/time of radio/tv coverage, and newsletters.

8. Include success stories, particularly for those who obtain information from the government databases. Get permission to use the patron's story, using the accompanying form.

FEBRUARY

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11 Monthly Report # (1-12)

OREGON JUMPSTART LIBRARY: Seaside Public Library
Grant Project Number: 3-95-4.3 (a)29

Date Submitted: 3-11-97

Submitted By: Paula Lee Clark

1. Report the number of search sessions conducted. A session is one person (staff or public) searching on the Jumpstart workstation between observable start and stop times. (You need not report the amount of time in each session.)

176

2. Report the number of connect hours per month. (This can be obtained from your Internet service provider.)

216

3. Report the number of presentations to promote the service.

business _____ government _____ school _____

community groups (Elks, etc) _____

4. Report the total audience number at all presentations combined. _____
(This is to be counted by library or project presenters.)

5. Report the number of public instruction hours. (This is to be counted by library or project trainers.)

individual 12

group _____

6. Include copies of press releases issued with this report.

7. Include copies of media coverage gained. Examples are copies of articles, date/time of radio/tv coverage, and newsletters.

8. Include success stories, particularly for those who obtain information from the government databases. Get permission to use the patron's story, using the accompanying form.

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Grant Activities Report

12 Monthly Report # (1-12)

OREGON JUMPSTART LIBRARY: Seaside Public Library

Grant Project Number: 3-95-4.3 (a)29

Date Submitted: _____

Submitted By: Paula Lee Clark

1. Report the number of search sessions conducted. A session is one person (staff or public) searching on the Jumpstart workstation between observable start and stop times. (You need not report the amount of time in each session.)

68

*Our provider was
down from 3-6 to 3-20*

2. Report the number of connect hours per month. (This can be obtained from your Internet service provider.)

91

3. Report the number of presentations to promote the service.

business _____ government _____ school 1

community groups (Elks, etc) _____

4. Report the total audience number at all presentations combined. 20
(This is to be counted by library or project presenters.)

5. Report the number of public instruction hours. (This is to be counted by library or project trainers.)

individual 10

group 0

6. Include copies of press releases issued with this report.

7. Include copies of media coverage gained. Examples are copies of articles; date/time of radio/tv coverage, and newsletters.

8. Include success stories, particularly for those who obtain information from the government databases. Get permission to use the patron's story, using the accompanying form.

OREGON JUMPSTART INTERNET PROJECT SUCCESS STORY

Please consider telling your story of a successful experience searching on the Jumpstart workstation, particularly if you were searching for government information. This will assist in evaluating the project, and perhaps help obtain funding for more Internet projects.

Seaside Library
Library Name

FRANCIS L. YOST 503-738-5846
Patron's Name Phone Number

Date 30 Apr. 96

Summary of my success story: Information Regarding The Cave
paintings of France - Information on the University
of Portugal in both English and Portuguese. City map of
London. Information on the making of specialized
Drainage equipment. Information on the Dynasties of
China - the date of the Great Wall of China and the dynasty
in which it was constructed to the 2 smaller walls. Schedule
of NBA playoff games. Information of the Tombs of China and
the schedule of U.S. showings.

Release Permission Form

Please check one of the boxes and sign below.

Check one:

☐ OREGON JUMPSTART INTERNET PROJECT may publicize the subject matter of my request in general terms only.

☒ OREGON JUMPSTART INTERNET PROJECT may publicize the subject matter of my request, and indicate my geographic location.

☐ OREGON JUMPSTART INTERNET PROJECT may publicize the subject matter of my request, and use my name/company name.

☐ I am willing to testify about how OREGON JUMPSTART INTERNET PROJECT assisted me.

Francis L. Yost
Patron's Signature

OREGON JUMPSTART INTERNET PROJECT SUCCESS STORY

Please consider telling your story of a successful experience searching on the Jumpstart workstation, particularly if you were searching for government information. This will assist in evaluating the project, and perhaps help obtain funding for more Internet projects.

Seaside Library
Library Name

Linda Frege
Patron's Name

738-9013
Phone Number

Date 4/17/96

Summary of my success story: ART Bell - Web site Radio Show
info - WWW.ARTbell.com. lots of info + lots
of fun.

CNN news site great-

The staff is excellent in assisting me
along the long + narrow pathway in
the universe of worldwide web

Release Permission Form

Please check one of the boxes and sign below.

Check one:

☐ OREGON JUMPSTART INTERNET PROJECT may publicize the subject matter of my request in general terms only.

☐ OREGON JUMPSTART INTERNET PROJECT may publicize the subject matter of my request, and indicate my geographic location.

☐ OREGON JUMPSTART INTERNET PROJECT may publicize the subject matter of my request, and use my name/company name.

☒ I am willing to testify about how OREGON JUMPSTART INTERNET PROJECT assisted me.

Linda Frege
Patron's Signature

Grant gives library Internet access

By **BRUCE L. SOLBERG**
Of The Daily Astorian

SEASIDE — This spring the public library will boost the community into the computer age through offering free Internet access.

Reita Fackerell, director of Seaside Public Library, said a computer, software and telephone connection have been provided through a grant from the Oregon State Library.

"We were delighted to receive this grant," said Fackerell. "We already have people wanting to reserve time to use the Internet and we won't even be ready to start until March," said Fackerell. "I believe we'll be the first public library in Clatsop County to have public access to the Internet."

The Internet provides access to

information from throughout the country and the world through a telephone hookup to a computer.

Fackerell said the library needs people who would be willing to receive training and act as volunteers for a couple hours a week to help newcomers understand how to use the service. People interested in volunteering can contact her at the library.

The library will only have one computer, so Fackerell said a sign-up sheet will be necessary, probably with 30 or 60 minute time slots.

"We expect most people will use the system initially just to explore," said Fackerell. "Many people don't know what's out there until they explore for themselves and lose their fear of the Internet."

Two staff members will attend an intensive two-day training session in Corvallis in March to learn the basics of accessing resources on the Internet. The grant was provided to 19 Oregon libraries.

It was designed to assist smaller libraries and their patrons in accessing information and resources that can be found on the Internet.

"In order to qualify, the library had to be in a small community of less than 25,000 people and have no public Internet access already," said Fackerell.

"Most of the larger libraries already have this service and people coming here from big cities kind of expect it. We're so removed from the big cities, we don't expect it or realize how valuable it can be."

MINUTES
Seaside Library Board of Trustees
March 5, 1996

- CALL TO ORDER** The regular meeting of the Seaside Library Board of Trustees was called to order at 4:30 pm, March 5, 1996.
- ATTENDANCE** Present: Chairperson Kay Aya; Members Russ Taggard, Jim Meeks, Nancy Lee Batchelder, Dan Cawley and Library Director Reita Fackerell.
- MINUTES** Motion to approve the minutes of February 6, 1996; carried unanimously. (Batchelder/Taggard)
- ANNOUNCEMENT** Library Director Reita Fackerell announced that Board Member Dan Cawley had received a position as Library Director at the Gold Beach Library and has announced his resignation. She thanked him for his time as a member of the Library Board of Trustees and all wished him the best.
- Reita announced that the Seaside Library has received the Meyer Memorial Grant for the microfilm reader/printer. She estimated that it will be approximately 2 months before the reader/printer is in use due to the bidding process.
- INTERNET ACCESS** The grant from Oregon State Library included one year of telephone access service (120 hours a month) to be provided by a local provider. Seasurf has agreed to provide hours that exceed the limit free of charge. A notice will be placed at the station stating, "Extra hours provided by Seasurf".
- Discussion followed regarding Internet use policy.
- Board Member Taggard recommended the sign up sheet include a disclaimer stating conditions and terms of Internet use in the Library.
- Motion to adopt Seaside Public Library Computer and Internet Usage Policy; carried unanimously. (Aya/Cawley)
- BUILDING MAINTENANCE** Director Fackerell said that Public Works Director Bob Chisholm had not assessed painting and roof repair of the Library but will get back to her.
- Reita stated that the skylight above the checkout desk could be shaded with the existing frame by simply dropping in a sheet of tinted plexiglass.
- BOARD VACANCY** Chairperson Kay Aya will make recommendations for the vacant seat with the Library Board. She stated that she would like to consider members of the community with young children. Reita said that she would let people know about the vacancy.
- NEXT MEETING** The next meeting was set for April 2, 1996 at 4:30 pm.
- ADJOURNMENT** Motion to adjourn; carried unanimously. (Cawley/Batchelder)

Respectfully submitted,
Paula Lee Clark

PRESS RELEASE

April 5, 1996

FROM : Seaside Public Library
RE: Log on @ the Library Day
FOR RELEASE: As soon as possible

ATTENTION
Marilyn Wajc

The Seaside Public Library will take you for a cruise on the information superhighway as part of the "Log on @ the Library" Day to be held Tuesday, April 16, during National Library Week which runs April 14-20.

"Log on Day" is being sponsored by the American Library Association (ALA) as a way of showing the wide range of information available online via the vast global network of computer databases known as the information superhighway.

Free demonstrations will be offered from 10 am to 7 pm at the Seaside Library. Come see what all the talk is about. Your tour will take you on a visit to the White House, show you how to look for a job, get health and other helpful information at the touch of a keyboard.

"Libraries are the public's on-ramp to the information superhighway," explains Internet Project Manager Paula Clark. "And librarians are the navigators. Our goal is to make sure that every American has access to this new technology at school, public, college and university libraries. Today, new technology makes it possible to provide up-to-the-minute information online for health, travel, finance, business and other needs."

Public, school, academic and special libraries across the nation will host "Log on @ the Library" Day as part of National Library Week, the annual celebration of libraries observed since 1958.

As part of this year's celebration, members of the public are asked to sign an "Equity Petition" urging local, state and federal legislators to protect public access to information by investing in libraries as on-ramps to the information superhighway.

"If we don't act now the information superhighway will be a toll road available only to those who are rich enough to afford it," Clark explained. "We want Americans to enjoy the same free and open access to information in the 21st century that they do today."

Public Internet access has been available at the Seaside Library since March 28.

Jumpstart Project Manager Certification

(This form may be replicated on a microcomputer.)

JOB DESCRIPTION

A Jumpstart Project Manager will be responsible for the following tasks:

- Attend two-day training session in Corvallis (planned for early 1996).
- Set up microcomputer system in a public area of the library.
- Set up Internet connections for microcomputer system.
- Develop training plan to train members of the public to use the Internet.
- Develop publicity plan to inform community about the project.
- Develop system to track use of the computer to access the Internet.
- Submit a project report at the end of the 12 month grant period.

1. Project Manager Name: _____
2. Describe below, and on the back of this page if necessary, the qualifications of the Project Manager. What training and/or experience has given the Project Manager at least a basic understanding of microcomputers and telecommunications? Indicate any training and/or experience the Project Manager may have had in accessing and utilizing Internet resources.

3. Certification of the Project Manager:

a. I affirm that I have read the Jumpstart Grant application, and that I am willing to manage the Jumpstart project described in the application.

b. I affirm that I have reviewed the job description of a Jumpstart Project Manager, and that I am willing to carry out all of the tasks required of a Jumpstart Project Manager.

Signature

Date

Please include an original signed copy of this form with your Jumpstart Grant application. Retain a copy for your files.

Connecting Rural Oregon Libraries to the Internet; or “Will it fit in my car?”

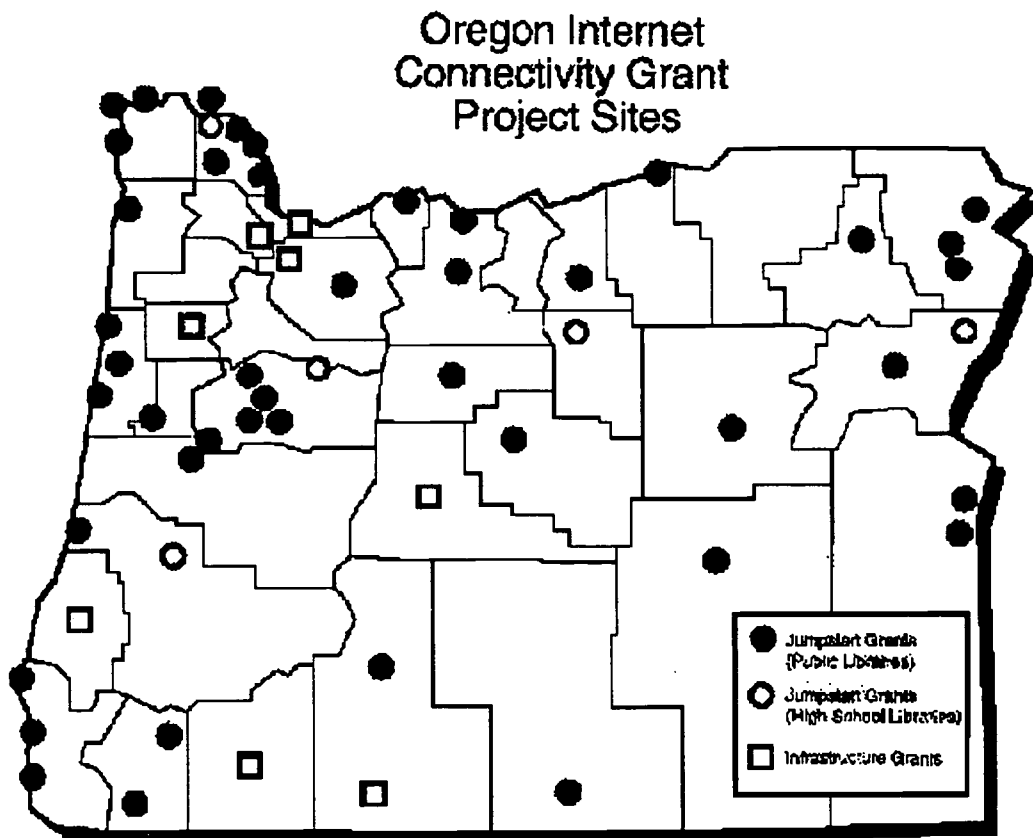
Abstract

With funding provided by the U.S. Department of Education, The Valley Library at Oregon State University developed a web site to provide remote access to government information received by the library in CD-ROM format. The project, *Jumpstart*, was created as a joint venture with the Oregon State Library and the Portland Area Library System (PORTALS) to provide hardware, software and training to rural school and public libraries in Oregon who have limited or no access to the internet.

Introduction

In 1992, The Valley Library at Oregon State University received a Research and Demonstration Grant issued under the auspices of the College Library Technology and Cooperation Grants Program distributed by the U.S. Department of Education to fund a project to provide primarily Pacific NW residents with remote access to U.S. government information received in CD-ROM format. Dial up access to government CD information was the original intent, but web technology was just beginning to emerge and was chosen as the medium to make the government information available. A website, The Government Information Sharing Project was created (<http://govinfo.kerr.orst.edu>). The site contains locally developed databases for population, housing, income, labor and social data from the 1990 Census, as well as economic and agricultural databases, import and export statistics, and school district statistics. In addition to the information loaded locally, there are links to other sites on the internet for additional types of government information.

Valuable government statistical data was now available electronically to anyone with access to the web, but a problem still existed for those libraries without internet access. Oregon is a geographically diverse state, spanning 96,184 square miles containing ocean coastline, high desert, farmland and heavily forested area. There are 36 counties in Oregon, 17 of these are located along the coastline and upper Northwest portion of the state and contain the majority of Oregon's 3,086,000 population. Approximately 19 counties in Oregon had limited or no access to internet resources. To resolve the connectivity problem, a second component to the project was developed. The Oregon State Library, the Oregon Information Highway Project, the Oregon Independent Telephone Association and the Portland Area Library System (PORTALS) fashioned a joint venture, the “Oregon Internet Connectivity Grant Program” also known as *Jumpstart* to meet the need. Funding for *Jumpstart* was provided by PORTALS,



Oregon State Library

The Oregon State Library, the Department of Education Grant, and matching funds from the Valley Library at Oregon State University. Grant opportunities for *Jumpstart*, which occurred in March 1996, were advertised by the Oregon State Library in their newsletter and by direct mailings to all public and many school libraries in the state. Based on responses from applicants, recipients were selected and invited to attend *Internet Bootcamp*, the training necessary to provide Pacific Northwest residents with access to government resources on the internet.

Through *Jumpstart*, forty-six rural school and public libraries in the state of Oregon were provided with computer equipment and critical training necessary to install the equipment and to provide internet services to their communities. The state map shows the locations of *Jumpstart* and *Jumpstart II* libraries throughout Oregon. The libraries received complete computer systems, two days of training, free telecommunication connections including service for one year, and continuing follow-up assistance both by e-mail, phone, and in person. Eight additional libraries, that required no training or follow-up support, received infrastructure grants for equipment.

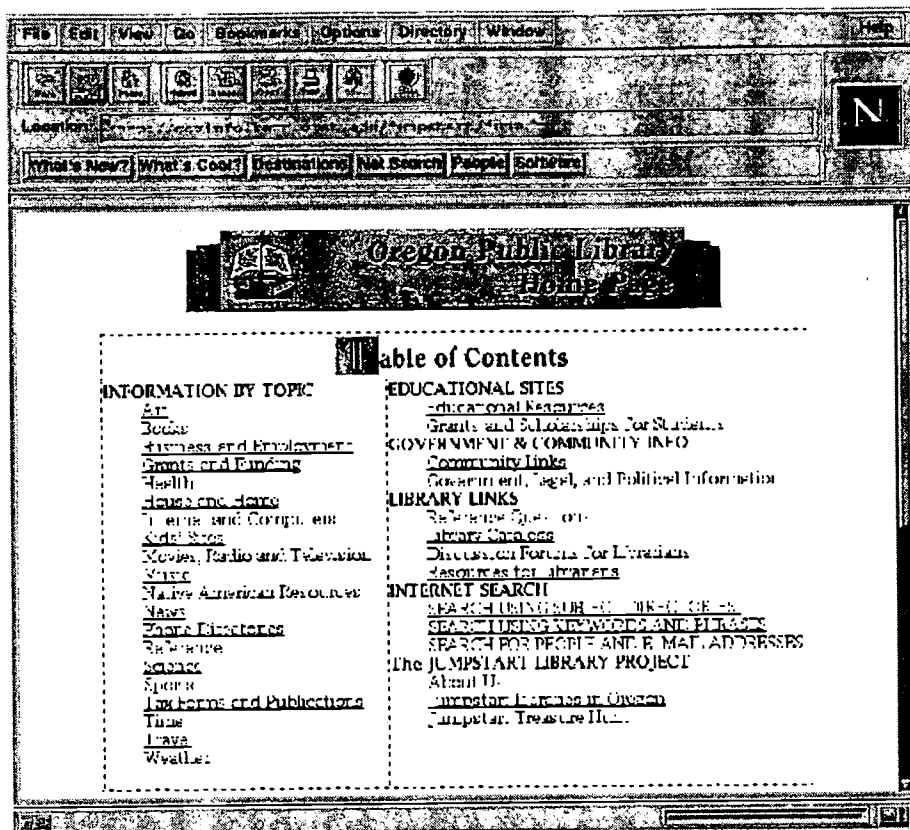
Equipment

The types of computer equipment given to the participating libraries was a joint decision of the Oregon State Library and The Valley Library. The computer staff from both libraries ordered the computers and loaded the software on the hard drives. The following is a list of the hardware and software issued to participants in *Jumpstart*. A DX4-100 (486, 100 MHZ) computer with 8 MB of RAM, 630 MB hard drive, CD-ROM drive, sound blaster card with earphones, 15" high-resolution color monitor, Brother 630 black/white laser jet printer, and 28.8K U.S. Robotics modem. Software included Windows 3.1, DOS 6.20, Trumpet WinSock communications package, Netscape 2.0 (web browser), Telnet and Adobe Acrobat applications, and WinPac Z39.50, a catalog browser.

Internet Bootcamp

The first official meeting of the *Internet Bootcamp* Project Team was convened by OSU's Associate University Librarian for Technical Services in January 1996. A library automation specialist was designated the project leader. The group consisted of two software consultants, three OSU librarians, one librarian from Valley Link, (a State Reference Referral Center program), and two Research Assistant automation specialists. The Project Team was charged with designing the two-day training program to teach rural school and public librarians to use the equipment and software they would be receiving from the *Jumpstart* grant. The Project Team suggested the following training: Netscape 2.0, select websites of interest to library staff, dialing-in to the internet through local providers, library catalogs available on the internet, internet use policies, and the Government Information Sharing Project.

The Project Team created the "Oregon Public Library Home Page" to be the platform on which most of the hands-on internet training sessions would be based. This page contained links to the Government Information Sharing Project home page and other internet sites that would be of interest to librarians participating in *Internet Bootcamp*. The page also contained a form for e-mail that would allow libraries in the *Jumpstart* program to communicate with each other and with the Faculty Research Assistant providing technical support. The "Oregon Public Library Homepage" can be accessed at ([http:// govinfo.kerr.orst.edu /jumpstart/jump.html](http://govinfo.kerr.orst.edu/jumpstart/jump.html)).



Two OSU University Computing Services Labs and a small computer lab in The Valley Library were reserved for the two day training period so that *Internet Bootcamp* participants would have maximum hands-on experience with the internet and an orientation to the equipment they would receive. In addition to the hands-on training, several sessions were designed to inform participants about the ethical and practical applications of internet use policy.

Bootcamp In Session

After months of planning and preparation for *Internet Bootcamp*, the day arrived, a beautiful, sunny Oregon day! Information had previously been sent concerning local arrangements, parking permits, a list of other participants, and an agenda for the two days. Since attendees were from all areas of the state, many arrived in town the previous day and were at our door early the next morning anxious to get started.

Internet Boot Camp

March 18, 1996

9:00-9:30 Registration Seminar Room, Valley 135

9:30-10:15 Introductory session Seminar Room, Valley 135
Oregon State Librarian
Director, Siuslaw Public Library, Florence

10:30-12:00 Netscape , [Session A or B] Milne 201 and 228
Software Support Consultants

Group A

1:15-2:45 Information of interest on the Internet Milne 228
Reference Librarian, The Valley Library

3:00-5:00 Dialing-in to local providers Training Lab, Valley 305

Group B

1:15-2:45 Library catalogs on the Internet Milne 201
Reference Librarian, The Valley Library

3:00-4:30 Government Information Sharing Project Milne 228
Reference Librarian, The Valley Library

March 19, 1996

Group B

8:30-9:30 Dialing in to local providers Training Lab, Kerr 305

9:30-10:15 Policies - *both groups* Seminar Room, Valley 135
Director, Corvallis Public Library
Reference Librarian, Salem Public Library

Group A

10:30-12:00 Library catalogs on the Internet Milne 201
Reference Librarian, The Valley Library

1:15-2:45 Government Information Sharing Project Milne 228
Reference Librarian, The Valley Library

Group B

10:30-12:00 Dialing-in to local providers Training Lab, Valley 305

1:15-2:45 Information of interest on the Internet Milne 201
Reference Librarian, The Valley Library

3:00-4:30 Wrap-up - both groups Seminar Room, Valley 135
University Librarian for Tech & Automation Services,
The Valley Library
Group Leader for Information & Tech Svcs, Oregon State Library
Network Development Consultant, Oregon State Library

The morning began with introductions of the Project Team and *Internet Bootcamp* staff, a brief presentation by the Oregon State Librarian, a review of the agenda and general building logistics. The group met collectively at the beginning and end of each day for questions; but to enable participants to have hands-on training sessions, they were divided for part of each day. By the end of the second day they had accumulated a lot of information (possibly an overload for some less experienced computer users), picked up their computer systems and headed home-- graduates of *Internet Bootcamp*!

The two day training session was so favorably received, the Oregon State Librarian requested a second *Internet Bootcamp*. The second training session occurred in September 1996 at which twenty-two libraries from all areas of the state were invited to participate. Working with the Oregon State Library, the Project Team identified librarians who participated in the first *Internet Bootcamp* to speak at *Internet Bootcamp II* about internet use issues and policy development based on their own library's experiences.

Unforeseen Obstacles

The Oregon State Library staff worked with individual libraries and their local internet providers to get the libraries connected. Internet Bootcamp staff had originally planned to train each participant using their local internet provider. Unfortunately, some providers were reluctant to furnish the passwords necessary for accessing their systems. The training sessions were modified, participants practiced connecting to the internet through the OSU computer system.

Unexpected logistical problems also arose; locating a large enough area to unpack and test the computers, load the software, and store the computer equipment until time for the *Internet Bootcamp* session. Because of a shortage of space on campus, the computer specialists had to move this equipment around campus more than once. Waiting for a final piece of software, which arrived two days before *Internet Bootcamp*, caused additional stress for the computer specialists. The software could not be loaded on the computers causing a delay of loading and packing of the equipment.

Difficulties For Participants

Participants involved in *Internet Bootcamp* also had obstacles to overcome. Many had to travel long distances to attend the workshop and several were concerned about transporting the computer equipment back to their home library. During the planning phases the Project Team received questions ranging from, "will the computer fit in the back of my Honda?" to "is it safe to ship computer equipment by bus?"

An additional barrier to the participants (and trainers) was the varying levels of computer expertise which spanned from novice user to expert systems persons. Content of workshops were geared primarily to novice users.

A final difficulty was that some participants did not have internet connections when they returned to their libraries with their new-found knowledge and excitement for "getting on the web." Unfortunately, because of technical problems such as wiring and phone connections, some local internet providers were unable to supply internet connections to some libraries in the state until after *Internet Bootcamp*.

Support

The project Faculty Research Assistant (FRA) maintained contact with all participating libraries via phone, email, and site visits to resolve software/hardware problems until December 1996 when his contract ended. Beginning in January 1997 the Oregon State Library assumed the role of follow-up with the libraries.

Comments from Participants

The FRA sent a follow-up survey to the participants after each *Internet Bootcamp* session. According to the responses, the most valuable portion of the training was hands-on time on the computers; and for participants of the second session, listening to the experiences of those in the first session. The least valuable portion of the training was dialing in to the local provider, and library catalogs on the internet. When asked, what should have been covered that wasn't? They said more specific information with internet applications, i.e. Telnet, FTP, Gopher; and more search engine searching techniques.

Conclusion

The two *Internet Bootcamps*, at a combined cost of \$200,000 were successful in several ways.

- Small rural school and public libraries in Oregon have access to internet resources that were previously only available in large metropolitan areas or at large universities.
- Library staff who were once isolated by geographical distances are now just nanoseconds away from each other via the internet.
- Distance education students will benefit by accessibility to information via the internet.
- *Internet Bootcamp* staff met colleagues from around the state which increased their understanding of the difficulties in providing reference services with very limited resources.

As a result of *Internet Bootcamp* library staff from all areas of Oregon were trained to access the internet. They now have the world at their fingertips. The project as a whole continues to receive words of appreciation. In December 1996 members of the project group were honored by the Oregon State Library Board for their success in connecting rural Oregon libraries to the internet.

Authors:

Cheryl Middleton, Life Sciences Librarian, The Valley Library, Oregon State University, Corvallis, OR 97331; e-mail: middletc@ccmail.orst.edu

Judy Cross, Government Documents Librarian, The Valley Library, Oregon State University, Corvallis, OR 97331; e-mail: crossj@ccmail.orst.edu

APPENDIX J-5

DRIFTWOOD LIBRARY GAZETTE SPECIAL EDITION

April, 1997

REPORT TO THE COMMUNITY:

This issue is devoted to updating you on our programs and services. We have taken various statistics from the Oregon State Library Report for the fiscal year 1995-96 and created some graphs that will show you how our services compare with those of Oregon libraries whose population base is nearest that served by Driftwood Library.

Compared to who?

The Oregon State Library Report for the last fiscal year (1995-96) lists our estimated service population as 10,937. We have compared our service levels to the next seven smaller libraries and the next seven larger libraries as listed below:

Lake County	7,400
Cottage Grove	7,657
Grant County	7,900
St. Helens	7,945
Scappoose	8,333
Milton-Freewater	9,135
Astoria	10,060
Driftwood	10,937
Lebanon	11,450
Mollala	13,380
Stayton	13,892
Monmouth	14,015
Canby	14,420
Wilsonville	14,390
Siuslaw District, Florence	14,714

In all of the graphs, the libraries will be in this listed order, with Driftwood in position eight from the left of the graph. We hope you enjoy learning more about what we do at the library and how we do it. Please feel free to ask Sue Jenkins or Patty Heringer for further clarification of this or other information.



"If a man empties his purse into his head, no man can take it away from him. An investment in knowledge always pays the best interest."

Benjamin Franklin

Read on

Director's Report pg. 2
Programs pgs. 4-8
Storytime Newsletter: insert

From the Director's
Desk:



Library Resources
by
Patty Heringer
Library Director

Several years ago there was a survey in which persons were asked if they knew how public libraries were funded. Of those polled, only half claimed to have any idea of how library services were paid for, and only half of those people were correct. With libraries in the information business, our library users need to have accurate information about how this service is paid for.

Public libraries are funded primarily with public (tax supported) funds. In Lincoln City, the major portion of the current budget, nearly \$360,000, comes from taxes paid for by Lincoln City tax payers. However, 21% of the budget, more than \$96,00, is from Lincoln County Library District property taxes. The District also provides other services, such as the courier that delivers library materials to and from other libraries. The Oregon State Library also allocates state income tax funds to public libraries in Oregon to provide enhanced library services to children. Lincoln City's share is \$600.

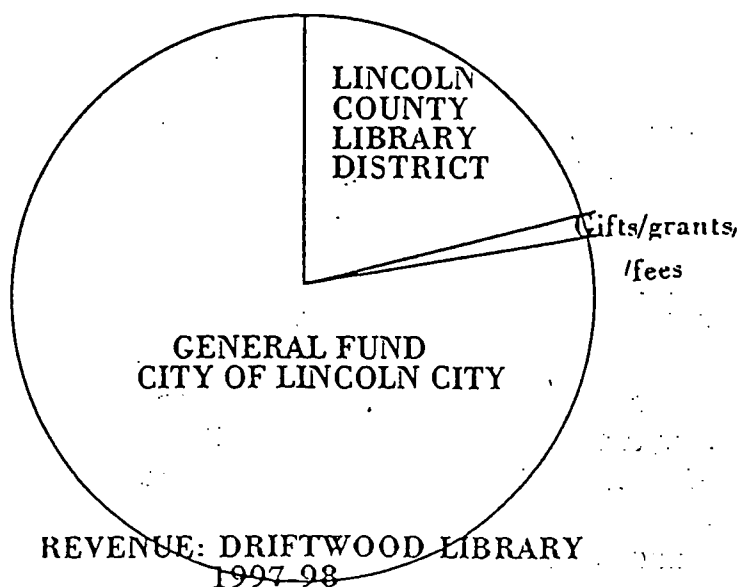
It is a commonly held, but unfounded, belief, that overdue fines can be a significant source of revenue for libraries. In the fiscal year 1996-97, less than \$1000 has been collected in overdue fines. Other fees will bring the total to no more than \$2,500.

Driftwood Library is fortunate to have an active Friends of the Library group. Their contributions of more than \$10,000 have provided recorded books, large print books, and additions to the Pacific Northwest Collection. A major project this year has been the purchase of tables for the large meeting room and completing the adjacent kitchen. The Friends of the Library has sponsored the successful series of author lectures for the last three years.

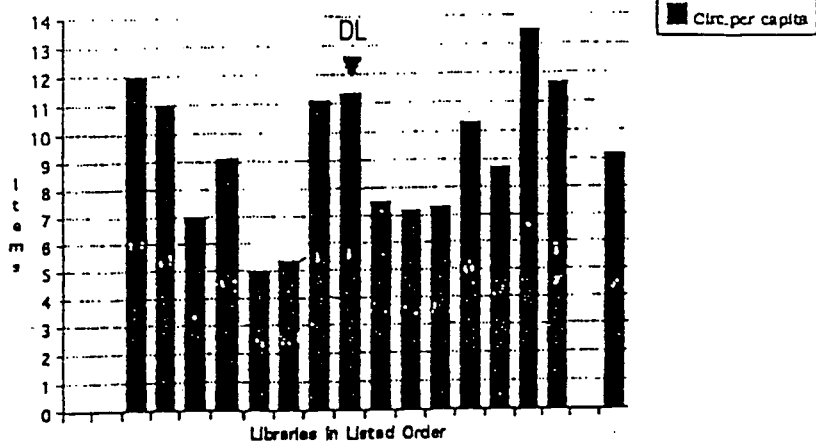
The Driftwood Library Foundation is also responsible for enhancements. Two major gifts totaling nearly \$10,000 have provided *The Dictionary of Art* and additional building signs.

Other community service groups, individuals, and businesses have been generous in donating more than \$3600 to fund Summer Reading Club activities, to add to the large print collection, and to accommodate lecturing authors, to name a few.

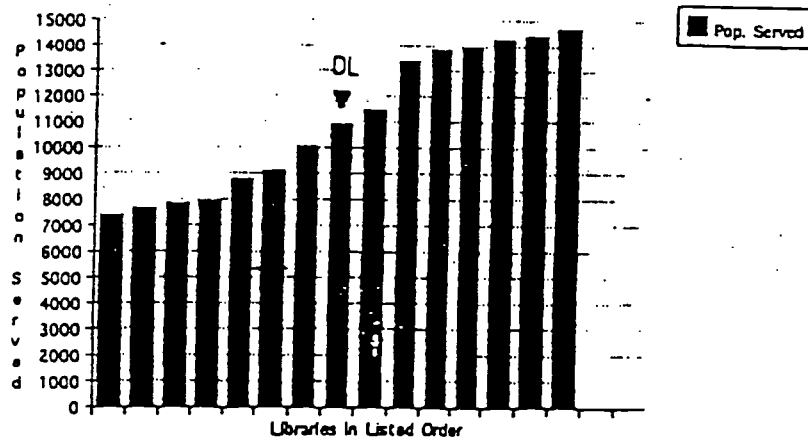
As important as these additional enhancements are to the range of services available at Driftwood Library, it is the combined support of everyone, through their taxes, that makes basic library services available to all citizens of our community. Come see your tax dollars at work at Driftwood Library.



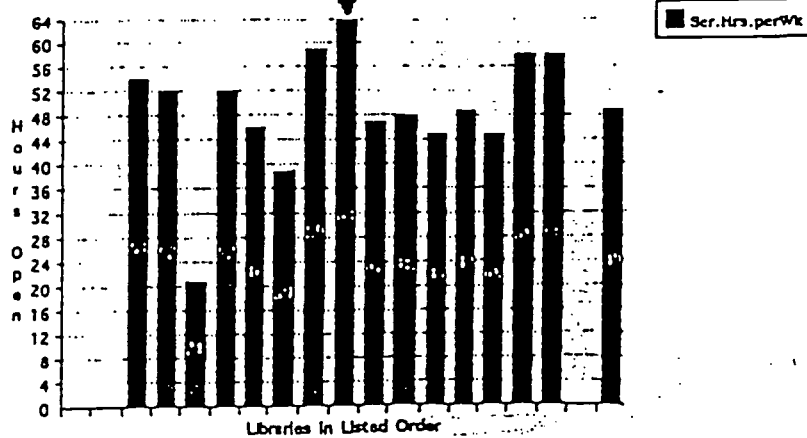
Library Circulation Rates



Small Public Library Population Service Bases



Weekly Service Hours



LIBRARY PROGRAMS

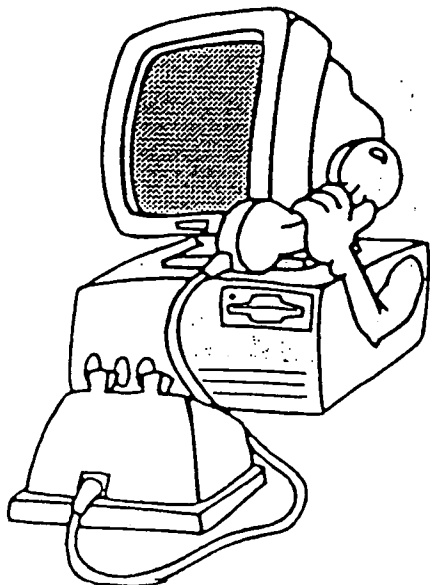
CIRCULATION SERVICES FOR ALL AGES

During the 1995-96 fiscal year, we checked out 124,905 items for use by Driftwood readers and learners. Of those items, 16,822 items were checked out for use by and with children. This is over 11 items for everyone in our service population of 10,937. Driftwood readers enjoyed listening to 7577 books on tape and watched 9411 library videos. The library staff also searched for and found books through inter-library loan from other libraries for our readers to use and enjoy.

The library is now open 68 hours a week, due to the generosity of the Lincoln City Council, who opened both the pool and the library on Sundays, beginning in February of 1997. Driftwood users may renew books over the telephone by calling 996-2277 during library hours.

Library Hours:

Monday-Thursday 9 a.m. - 9 p.m.
Fridays and Saturdays 9 a.m. - 5 p.m.
Sundays 1-5 p.m.
Closed Holidays



INFORMATION SERVICES

During the 1995-96 fiscal year, The library staff answered 7,381 reference questions at the information desk. The staff also provides direction to resources within the library collection, demonstrate how to use the Online Public Access Catalog to the collections of all six libraries in the Coastal Resource Sharing Network, and help students daily with homework needs and research questions.

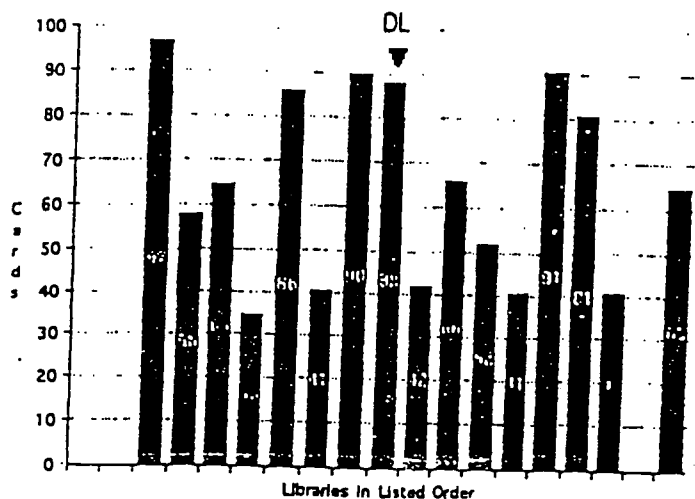
The public may also use the Infotrac station to look up magazine article abstracts and the Lincoln County Property Database terminal to search county property records held at the Lincoln County courthouse in Newport.

In August of 1996, we unveiled the county's first public access station to the Internet. Free access to the Internet and the World Wide Web is provided whenever the library is open. Trained volunteers are available for lessons at various times throughout the week, at no charge. So far, the Internet work station has been in use and average of 45 hours a week with four to five individual lessons being the weekly average. We ask that you sign up at the front desk for lessons or for an hour's use. Students and children under the age of 18 must have parental permission; children under the age of 13 may only use the Internet if a parent is present with them at the Internet workstation. Call 996-2277 to reserve a lesson slot.

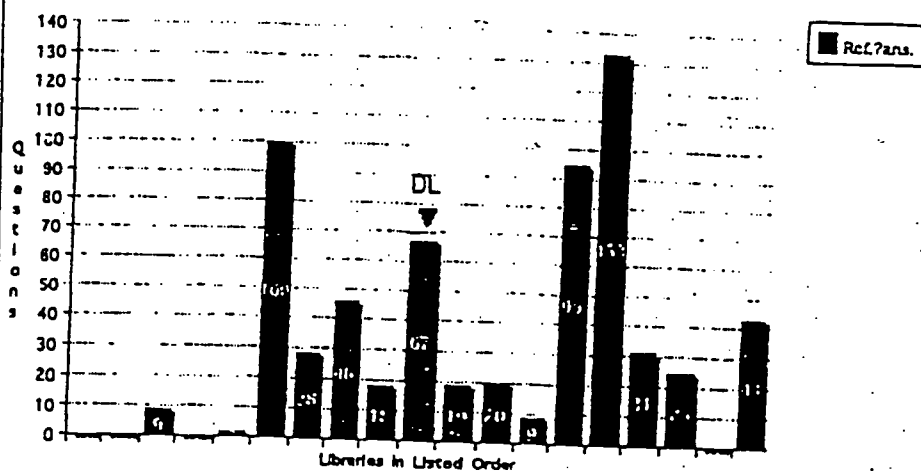
Library Telephone Numbers

Circulation Desk	996-2277
Director's Office	996-1251
Information Desk	996-1257
Library Outreach	996-1255
Volunteer Office	996-1253
Childrens Desk	996-1258

Library Cards Per 100 Population



Reference Queries Per 100 Population

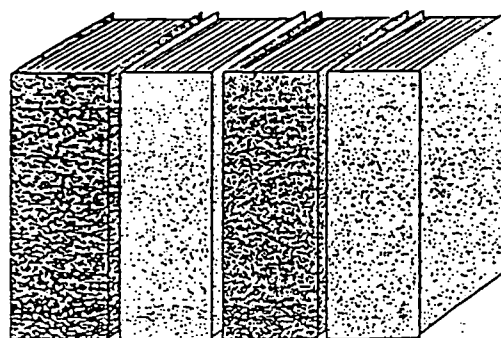
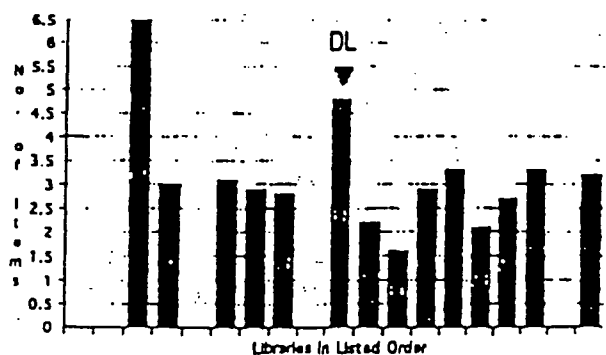


read before
you write

use your
library

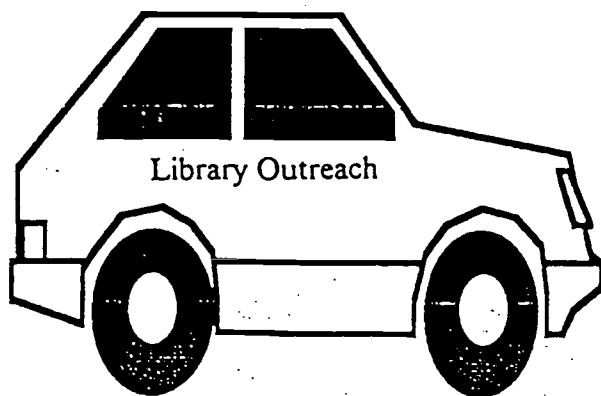


Items in Collection Per Capita



Driftwood Library has been providing free customized library service to those in care and residential services and those who are homebound due to age, illness, or injury for 22 years. This is very rare service for a small community like Lincoln City but is a reflection of community need and the library mission of meeting the information needs of all Lincoln City residents. Currently, Kate Saunders delivers books to 7 care and residential centers every two weeks, as well as taking books to the mealsites and to the homes of those who can no longer get out in the community independently. A talented volunteer presents Bifolkal programs at Optimum Care Center once a week.

Kate also signs people up for the Talking Book program for the blind and visually impaired that is based at the Oregon State library in Salem. Those in this free program receive a tape recorder and cassettes that are delivered through the mail and returned postage free. Outreach services are provided to the community on Wednesdays and Thursdays; you may reach Kate at the library at 996-1255.



On the road again...books to people!

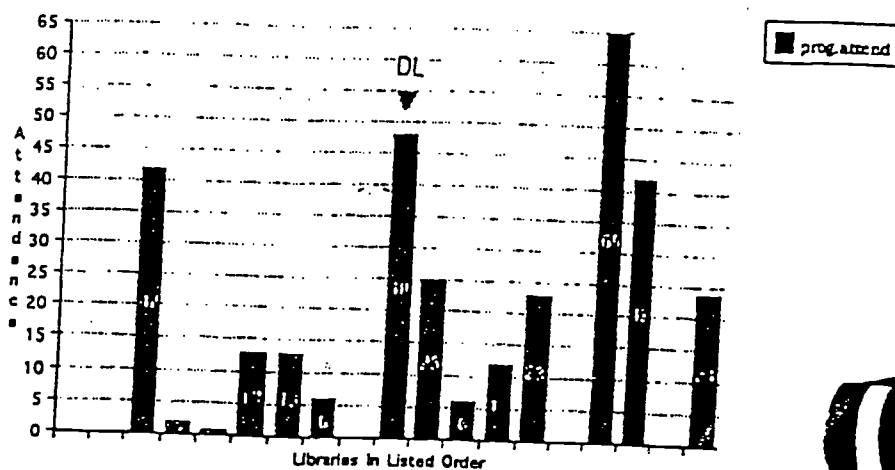
Throughout the years, the staff of Driftwood Library have presented to the community programs that both enlighten and entertain. From the early film series before the Bijou reopened to Chataqua Programs from the Oregon Council for the Humanities, we have designed programs that enhanced community learning and our understanding of our literature and our history as a state and a community.

The most popular of all of our series so far has been the Oregon Legacy Series held in January and February on Sunday afternoons. These programs bring regional authors and historians to Lincoln City to talk about their work and the relationship of landscape- both physical and spritual - to their creativity. This series is supported by grants from the Friends of the Library and the Inn at Spanish Head.

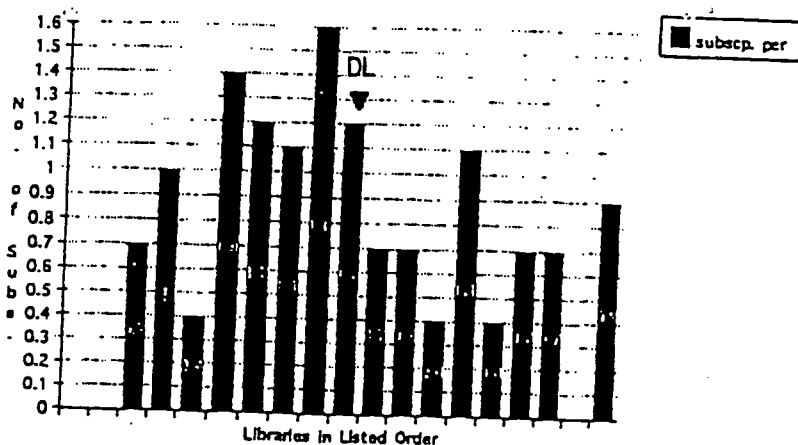
This autumn will see the first poetry series that the library has hosted. Driftwood Library is one of 50 libraries in the country selected to be a site for the "Poets in Person" program that is based on a PBS series on contemporary American poets. Dr. Naomi Wamacks will serve as the scholar - facilitator of the series, with Sue Jenkins, Assistant Director, as the series coordinator. Both Wamacks and Jenkins will travel to San Francisco in June to receive three days of training as part of the program grant received by Driftwood Library from the Modern Poetry Association and the National Endowment for the Humanities. Jenkins wrote the grant for the library in the fall of 1996 and will serve as grant administrator as well.

Call Sue Jenkins at 996-1253 for library program information.

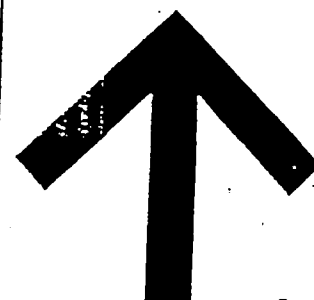
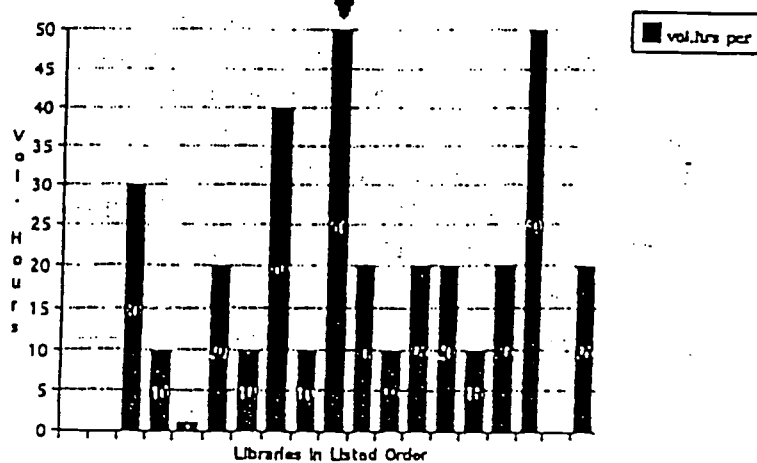
Program Attendance Per 100 Population



Subscriptions per 100 Population



Volunteer Hours Per 100 Population



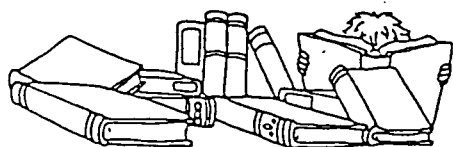
gershwin
garbo
and poe
to go

at your library

On the colored insert you will find our storytime schedules and other information for parents about reading. We also have special children's activities during the summer when Summer Reading Club is in full swing after school is out. All of these programs and activities are tailored to support and expand literacy from the pre-reading level on up to middle school.



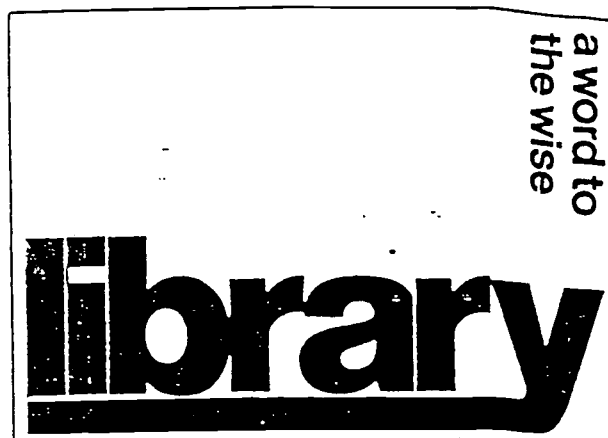
Our children's room is a very special place to many parents and children in the north Lincoln County area. All children's resources but the juvenile non-fiction books are kept in this room. There are videos, books on tape, book kits, board books, folk tales, and a special collection of holiday stories and "real" subject picture books for the very smallest of our beginning readers. The story arena is the site of most of our programs where Jill Heffner, our talented Children's Library Assistant, uses her dramatic and literature skills to enhance story hours and activities. Our toy library is open for use by families after the Lapsit story hour for toddlers on Wednesdays. Please call Jill Heffner at 996-1258 for more information about children's programs at Driftwood Library.



DRIFTWOOD LIBRARY WILL BE CLOSED ON THE FOLLOWING HOLIDAYS:

Memorial Day-May 26, 1997
Independence Day-July 4, 1997
Labor Day - Sept. 1, 1997
Veterans Day, Nov.11, 1997
Thanksgiving - Nov. 27-28, 1997
Christmas - 24-25, 1997

In case of extreme weather, library closures for emergency purposes will be announced through the local media.



VOLUNTEER SERVICES

Driftwood Library has always enjoyed the gifts of time and talent from the greater Lincoln City area that provide the skills of the library volunteer corp. We have a total of 50 active volunteers who shelve books, run the book sales, process new library materials, type, help with children's activities, serve as mentors, give Internet lessons, mend books, help with special events and give Bifolkal programs. If you have a skill and some time to share it with the library, please contact Sue Jenkins at 996-1253.

Writer : Sue Jenkins
Director's Report: Patty Heringer.

Please call Sue at 996-1253 with any questions about this report. Thanks!

Appendix J-6

BOOKS ABOUT THE INTERNET

The following list of titles is currently available for checkout at Driftwood Library. Individual titles may be in use at any time. You may reserve a particular title with your library card at the front desk.

Other titles will be added to the library collection as funds and reader's interest allow.

Recommendations are always welcome.

004.6 Gaffin Everybody's Guide to the Internet

004.6 Krol The Whole Internet Users Guide & Catalog. 2nd ed

025.04 Cronin Doing Business on the Internet: how the electronic highway is transforming American companies

025.04 Dougherty The Mosaic Handbook: for Microsoft Windows. 1st ed.

025.04 Eddings How the Internet Works

025.04 Ellsworth the Internet Business Book

025.04 Fisher Riding the Internet Highway

025.04 Glossbrenner Internet 101: a college students guide

025.04 Herz Surfing on the Internet: a nethead's adventure online

025.04 Kent Complete Idiot's Guide to the Internet

025.04 Pfaffenberger Mosaic User's Guide

025.04 Pfaffenberger Internet in Plain English

036.1 Dery Escape Velocity: cyberculture at the end of the century

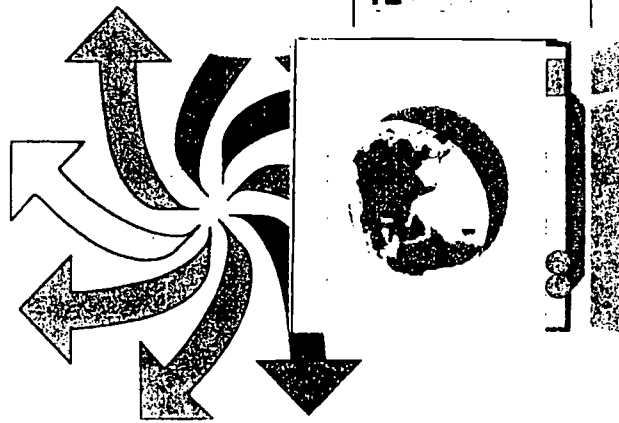
303.48 Resisting the Virtual Life: the culture and politics of information

650.4 Kennedy Hook Up. Get Hired: the Internet job search revolution

658.8 Levinson Guerrilla Marketing online: the entrepreneur's guide to earning profits on the Internet

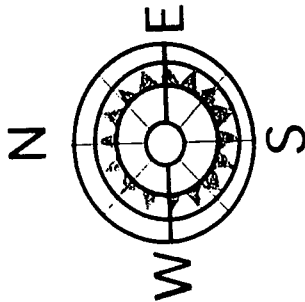
There are also titles in our reference collection that you may use while in the library. The call numbers will be similar to those listed above.

Please check the NEW BOOKS shelves just north of the front desk for our most recently arrived titles. You may also reserve books on the Internet from other Coastal Resource Sharing Network libraries. Please check the on-line catalog terminals for correct author and title. Search under "internet" and see what you find!



INTERNET ACCESS AT DRIFTWOOD LIBRARY

Appendix J-6



INTERNET USE AT DRIFTWOOD LIBRARY

The public-access internet workstation is supported by a grant from the Oregon State Library through the Library Services and Construction Act. Training and information for the library staff has been supplied both by the Oregon State Library and the staff of the Government Information Sharing Project, Kerr Library, Oregon State University.

The workstation is intended to serve as a information resource for the citizens of Lincoln City and the surrounding area. Those wishing to use the station may inquire at the information desk. Use of the workstation is on-site only. There is no dial-in access to this workstation.

POLICIES

The following policies regarding internet use in Driftwood Library were adopted by the Library Board on April 15, 1996.

1. Only one hour of use per person per day. Sign-in sheets are located at the front desk.

2. No more than two people at the terminal at any one time. Both persons must sign in at the front desk in advance of use.

3. The terminal may be reserved for staff use or training at any time.

4. Requests for use of the Internet terminal may be made at the front desk no more than 24 hours in advance. Time is reserved in one hour segments with identification (library card/driver's license) and telephone numbers. Requests must be made in person.

5. Minors must have a signed parental permission slip on file at the front desk. Children under the age of 13 may use the internet terminal only when their parents are with them.

6. Parents are responsible for printing costs (\$.10 a page) for material generated by their child's use of the Internet. Parents are also responsible for any damage that may result from misuse of terminal hardware, software, and connecting wiring. Unpaid costs or damages may result in the loss of library privileges.

7. All persons using the Internet terminal are responsible for printing costs (\$.10 a page) resulting from use of the Internet and any damages to equipment, software, or connections resulting from abuse.

8. The library Internet terminal is not to be used for any commercial activity.

9. The library staff reserves the right to set the parameters of the software and hardware for the most efficient use by multiple users. Any attempt to modify or customize parameters will result in loss of privileges.

10. Downloading of files is not allowed. The disk drive and cd-rom drive are blocked for security reasons.

11. E-mail, internet relay chat, gaming, and newsgroups are not appropriate use of this public information resource.

12. The library staff are authorized to interrupt and disconnect any Internet session resulting in the generation of pornographic or offensive material or any attempts to willfully damage the terminal or software.

The library receives dial-in access through subscription to a local on-line service. We do not provide e-mail accounts, or services to databases that charge by the search or length of access.

Study Materials

The library catalog terminals contain listings of internet-related materials. Those books that are not listed as reference material may be checked out or reserved if in use. A listing of Driftwood Library books on the Internet is on the back of this brochure.

VOLUNTEERS

We welcome assistance from local Internet users who can donate at least two hours a week to help others learn to use this wonderful resource. We will provide limited training for volunteers who have computer and keyboard experience. Please contact Sue Jenkins at 996-1253 or Yueh-Lin Chen at 996-1260 to sign up for volunteer service at the Internet station.

CLASSES

The Oregon Coast Community College has a series of Internet classes listed in the catalog. Please call 996-4919 for more information.

8/15/96

Stephen Mosley
Research Assistant, Information Services
Oregon State University
121 Valley Library
Corvallis, OR
97331-4501

Voice: 541-737-4514
Fax: 541-737-3453
Pager: 541-507-0150
E-Mail: Mosleys@ccmail.orst.edu

Ms. Tobe Porter
Librarian
Langlois Public Library
P.O. Box 277
Langlois, Oregon 97450

June 20, 1996

Evaluation and Survey Form

Purpose: This form is provided for the participants in the Oregon Internet Connectivity Grant Program, particularly those of you who attended the Internet Bootcamp training at Oregon State University on March 18 & 19, 1996. Your feedback will provide us with information necessary to serve you effectively and will also help guide us as we plan similar projects in the future. If you run out of space to write your answer, please attach another sheet or continue your answer on the opposite side of the paper. You can either print and mail this form, or send it via E-mail. For an electronic version of this form, send a request to Mosleys@ccmail.orst.edu.

=====
School/Library: Langlois Public Library

Librarian: Tobe Porter

Internet Provider: Harborside

=====
Internet Bootcamp Training:

Now that you've had an opportunity to implement the training you received, please consider the following questions:

What was the most valuable portion of the training?

- 1) Actual Hands-on "surfing."
- 2) Listening to how libraries use the Internet

What was the least valuable portion of the training?

It was all valuable

Was there anything that you wish we had covered in the training that we didn't?

I personally could have used another day walking with a public library person on how to use the Internet effectively as a reference tool.

If you have any additional comments or suggestions regarding the Internet Bootcamp, please include them here:

all the people involved were extremely knowledgeable, professional, and gracious with their knowledge. the friendly atmosphere (and good food) helped calm "student" nerves.

=====

User and Patron Needs:

If you do not have enough information to answer the questions below, just respond with N/A.

How has the level of interest of your patrons in using Internet resources compared with what you expected?

Well, we really had no set expectations. However, I had hoped our patrons would show a little more interest. Of course, we've been "down" almost as often as up and running. The jury is still out.

Do you think any of your patrons have unrealistic or inappropriate expectations regarding how your facility can serve their interests by providing public access to the Internet? If so, in what ways?

No

Has the Oregon Public Library Home Page proven useful to your patrons?

Yes

Library and School Needs:

To provide reliable, effective support for the librarians and project managers, we would like to know how best to focus our support resources to work in tandem with your Internet Service Provider.

Have you had any significant problems for which you would like additional assistance?

we'd just like Stephen to come live here; short of that, no thanks.

Did you have to look for or change your Internet Service Provider? If so, did you encounter any difficulty?

No

Has your Internet Service Provider been helpful in getting you started? Yes

How can we best improve the level of service and support for your library or school?

I think you've done a fine job and the next is up to us. However, please see below.

If you have any additional comments, relating to the questions in this survey, or on any other matter that you think deserves attention, please include them here:

The reality of the Internet at our library is that we have very little time to devote to it, to learn how best to use it. I did not expect this to be the case.

We are addressing this problem in two ways: we have found our volunteer "Internet Guide" (per suggestion from the Bootcamp) and our staff (both of us) are going to take a 3-hour class locally that will, hopefully, allow us the knowledge and comfort of keeping the system out of trouble. This is not something I believe you all could change, but maybe for the next bootcamp one

Thank you for responding to this message.

of the speakers could address the problem of lack of time and knowledge vs. working with the public.

Thanks from all of us for such a very fine program.

Tybe Pater

BEST COPY AVAILABLE

Subj: Survey for Jumpstart Libraries
Date: Thu, Jun 20, 1996 3:57 PM EDT
From: mosleys@ucs.orst.edu
X-From: mosleys@ucs.orst.edu (Stephen Mosley)
To: whslor@ixnetcom.com, tdlibrary@gorge.net, dufurlibrary@gorge.net,
hastg@aol.com, mcloo@micron.net, nyssalib@micron.net

Evaluation and Survey Form

Purpose: This form is provided for the participants in the Oregon Internet Connectivity Grant Program, particularly those of you who attended the Internet Bootcamp training at Oregon State University on March 18 & 19, 1996. Your feedback will provide us with information necessary to serve you effectively and will also help guide us as we plan similar projects in the future. If you run out of space to write your answer, please attach another sheet or continue your answer on the opposite side of the paper. You can either print and mail this form, or send it via E-mail.

School/Library: Hood River County Library

Librarian: Hillary Steighner

Internet Provider: GorgeNet

=====
Internet Bootcamp Training:
Now that you've had an opportunity to implement the training you received, please consider the following questions:

What was the most valuable portion of the training? The most valuable part was learning about other library's policies & how they handle the practical & philosophical aspects of public access to the Internet.

What was the least valuable portion of the training? The least valuable part was the time spent looking at government-related sites. The hand-outs were valuable but we could have explored those links on our own. Also we never used the library catalog software.

Was there anything that you wish we had covered in the training that we didn't? I would have liked more basic PC computer instruction (since the Project Manager was a MAC user), and less time doing the "treasure hunt," which we could do later on →

6/20/96

America Online: Hastg

Page 1

If you have any additional comments or suggestions regarding the Internet Bootcamp, please include them here:

User and Patron Needs:

If you do not have enough information to answer the questions below, just respond with N/A.

How has the level of interest of your patrons in using Internet resources compared with what you expected?

People have asked when the Internet will be available because they saw the "Internet coming soon" sign. After Fortres 101 was installed, we opened it to the public and a few have signed up. We are just beginning our publicity with an article that should be appearing in this week's local paper, and I expect public interest will be increasing.

Do you think any of your patrons have unrealistic or inappropriate expectations regarding how your facility can serve their interests by providing public access to the Internet? If so, in what ways?

Since the public has barely started using it, I'll answer this question in terms of some staff members who were only familiar with the Internet through the media. A few were disappointed because it was sometimes slow or the links didn't connect. Some expected it to be easier and faster to find answers to reference questions. Also, a couple people wondered if we'd use it as more of a communication tool than we are using it; with chat rooms, e-m.

Has the Oregon Public Library Home Page proven useful to your patrons?

I predict the OR Public Home Page will be very useful for patrons. I think it's very well-done. Perhaps eventually we'll have our own home page, but I hope OR Public Lib. Home Page continues so we can always have a link to it.

Library and School Needs:

To provide reliable, effective support for the librarians and project managers, we would like to know how best to focus our support resources to work in tandem with your Internet Service Provider.

Have you had any significant problems for which you would like additional assistance?

No problems

Did you have to look for or change your Internet Service Provider? If so, did you encounter any difficulty?

No

Has your Internet Service Provider been helpful in getting you started?

Getting connected was easy, so we haven't needed much help. They did seem supportive and are allowing us up to 100 hours, even though the normal account is 80 hours/month.

6/20/96

America Online: Hastg

Page 2

How can we best improve the level of service and support for your library or school? Just keep it up! Support has been excellent. We

were notified by e-mail of relevant information that was not covered during the workshop + received on-site help several times. This was very instructive for someone who has never had to do anything with PCs other than using applications that were already set up. I'm very satisfied with the way the computer is set up with Fortres 101 + the hiding

If you have any additional comments, relating to the software, I hope the questions in this survey, or on any other matter that you computer support think deserves attention, please include them here: continues indefinitely.

It would have been nice if the computers had come with security + hiding software installed!

Thank you for responding to this message.

vl:21PM6/18/96

Stephen Mosley
Research Assistant, Information Services
Oregon State University
121 Valley Library
Corvallis, OR 97331-4501
Voice: 541-7374514
Fax: 541-737-3453
Pager: 541-507-0150

----- Headers -----
From mosleys@ucs.orst.edu Thu Jun 20 15:56:27 1996
Return-Path: mosleys@ucs.orst.edu
Received: from ucs.orst.edu (UCS.ORST.EDU [128.193.4.5]) by
emin24.mail.aol.com (8.6.12/8.6.12) with SMTP id PAA15990 for
<hastg@aol.com>; Thu, 20 Jun 1996 15:56:18 -0400
Received: from slip131.UCS.ORST.EDU by ucs.orst.edu;
(5.65v3.2/1.1.8.2/13Mar96-1233PM)
id AA21512; Thu, 20 Jun 1996 12:56:30 -0700
Message-Id: <9606201956.AA21512@ucs.orst.edu>
X-Sender: mosleys@ucs.orst.edu
X-Mailer: Windows Eudora Light Version 1.5.2
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

WED

rDate: Wed, 24 Apr 1996 17:52:20 -0700
 From: Stephen Mosley <mosleys@ucs.orst.edu>
 To: jocolib@magick.net, chtigers@aone.com, elginlib@eoni.com,
 bethl@nethost.multnomah.lib.or.us, whslor@ixnetcom.com,
 myemail@pdx.oneworld.com, christo@harborside.com, hastg@aol.com,
 sjenkins@wcn.net, lchen@wcn.net, nyssalib@micron.net,
 Port.Orford.Library@harborside.com, Crookco@Empnet.com,
 rfackere@orednet.org
 Subject: Evaluation and Survey Form

Purpose: This form is provided for the participants in the Oregon Internet Connectivity Grant Program, particularly those of you who attended the Internet Bootcamp training at Oregon State University on March 18 & 19, 1996. Your feedback will provide us with information necessary to serve you effectively and will also help guide us as we plan similar projects in the future. If you run out of space to write your answer, please attach another sheet or continue your answer on the opposite side of the paper. You can either print and mail this form, or send it via E-mail.

School/Library: Estacada Public Library

Librarian: Beth McKinnon

Internet Provider: Teleport

Internet Bootcamp Training:

Now that you've had an opportunity to implement the training you received, please consider the following questions:

What was the most valuable portion of the training?

How to log on/ the practice provided by the Treasure Hunt.
 the positive attitude, and helpfulness of all the trainers.
 patience

What was the least valuable portion of the training?

there was nothing that could be cut from the training.
 maybe lack of time. could additional training & tips be
 given in classes - distance learning -

was there anything that you wish we had covered in the training that we didn't?

hardware & software security
 initialization strings

If you have any additional comments or suggestions regarding the Internet Bootcamp, please include them here:

User and Patron Needs:

you do not have enough information to answer the questions below, just respond with N/A.

How has the level of interest of your patrons in using

Internet resources compared with what you expected? ^{#use}
It is slower than I expected. But interest has
been steadily increasing

Do you think any of your patrons have unrealistic or
inappropriate expectations regarding how your facility can
serve their interests by providing public access to the
Internet? If so, in what ways?

yes. One 10 year old wanted to put up a home page of
his "businesses" (bogus) using the storage space we
pay teleport for.... hmmm...

Has the Oregon Public Library Home Page proven useful to
your patrons?

yes. we use it for the Jumpstart Station's home page.
It is a great source for quality sites

Library and School Needs:

To provide reliable, effective support for the librarians
and project managers, we would like to know how best to
focus our support resources to work in tandem with your
Internet Service Provider.

Have you had any significant problems for which you would
like additional assistance?

no

you have to look for or change your Internet Service
Provider? If so, did you encounter any difficulty?

I am open to the possibility of a new provider which would not
terminate ~~se~~ connections every 5 min. of inactivity

Has your Internet Service Provider been helpful in getting
you started?

Great support.

How can we best improve the level of service and support for
your library or school?

already have great service & support. Maybe a listserve
for the jumpstart grant recipients so everyone can

If you have any additional comments, relating to the
questions in this survey, or on any other matter that you
think deserves attention, please include them here:

communicate
joys & frustrations,
ask questions, lend
support

Thank you for taking the time to respond to this message.

Stephen Mosley
Research Assistant, Information Services

Stephen Mosley
Research Assistant, Information Services
Oregon State University
121 Valley Library
Corvallis, OR
97331-4501

Voice: 541-737-4514
Fax: 541-737-3453
E-Mail: mosleys@ccmail.orst.edu

Important Information for Jumpstart Libraries

This information is provided for the participants in the Oregon Internet Connectivity Grant Program, particularly those who attended the Internet Bootcamp training session at Oregon State University on September 16 & 17, 1996. Starting in January 1997, Stephen Mosley will no longer be available for on-site technical support or training. Additionally, Stephen will be taking a leave of absence from the University until further notice. If you have questions or remarks that can be resolved by telephone, please call the phone number provided above, or call Rushton Brandis at the Oregon State Library. In the future, Oregon State University anticipates working on similar projects that will involve public libraries and the development of Internet-based information resources. Consequently, we have included some questions for you to consider and return at your earliest convenience. Thank you for working with us to provide Oregon with access to a greater variety of resources and information.

School/Library: Curry Public Library District

Librarian: Daniel D. Cawley

Internet Provider: SCAN-South Coast Area Network (Visualquest)

Internet Bootcamp Training:

Now that you've had an opportunity to implement the training you received, please consider the following questions:

What was the most valuable portion of the training?

I appreciated the fact that each trainee had their own computer to learn on. The ultra-fast connections also expedited the learning process.

What was the least valuable portion of the training?

The global security and system backup discussions were way over my head. Equally confusing were the instructions for installing provider software on the C drive and copying onto the D drive.

Has the Oregon Public Library Home Page proven useful to your patrons?

Absolutely. The home page serves as an excellent starting point for internet instruction. It also has some cool links that get first time users excited from the outset.

Have you had any significant problems for which you would like additional assistance?

There have been a few glitches along the way; none of our difficulties could be considered significant. I think each Jumpstart library should have their own resident computer expert. Things move so much smoother if someone locally can troubleshoot your problems.

Do you think it would be useful to have your own Library Web page with local community information? If so, would you like help in developing such a page?

Yes. First, we need to automate our circulation system. A web page and dial-in catalog access would serve the community well. We would appreciate web page design assistance.

If you have any additional comments, please include them here:

Excellent organization and presentation.

The food was great (keep that caterer)!

Thank you for responding to this message.
v1:21PM12/18/96

Stephen Mosley
Research Assistant, Information Services
Oregon State University
121 Valley Library
Corvallis, OR 97331-4501
Voice: 541-737-4514
Fax: 541-737-3453

Thanks for everything!!
-Sam

Stephen Mosley
Research Assistant, Information Services
Oregon State University
121 Valley Library
Corvallis, OR
97331-4501

Voice: 541-737-4514
Fax: 541-737-3453
E-Mail: mosleys@ccmail.orst.edu

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School/Library: Joseph City Library

Librarian: Genene Kingsford

Internet Provider: Ednet

Internet Bootcamp Training:

Now that you've had an opportunity to implement the training you received, please consider the following questions:

What was the most valuable portion of the training?

I enjoyed the "playing on the internet" portion of the training the most and I believe that it got us all pumped up and excited about using it, however, I felt more time needed to be spent on getting things up and running. Having people come from the other libraries and talk about problems they encountered was very helpful.

What was the least valuable portion of the training?

Although training about the security system is needed, I believe that it would have been more helpful to have had that information in paper form that we could refer to later. I tried taking notes, but since I haven't worked with a security system before, I found my notes to be a little short on some of the information I needed.

Has the Oregon Public Library Home Page proven useful to your patrons?

The home page has been extremely helpful and I would definitely recommend that every jumpstart computer have one installed.

Have you had any significant problems for which you would like additional assistance?

In the beginning, we had a lot of trouble with our trumpet windsock program. It wouldn't dial for us and we had problems with the server. They did not seem to be as helpful as I would have hoped. We are at last up and running and the problems have been ironed out, but it took a long time.

Do you think it would be useful to have your own Library Web page with local community information? If so, would you like help in developing such a page?

Since we live in such a small area, there is not a lot of local community information out there for us to develop a page with. I would like to learn about developing a home page though so I could answer questions for patrons and be able to set up one for the library later on.

If you have any additional comments, please include them here:

The addition of the internet to our library is going to prove to be the most important reference tool we have ever acquired. I would like to thank everyone who made the grant possible and the people who trained us and got us up and running.

Thank you for responding to this message.
v1:21PM12/18/96

Stephen Mosley
Research Assistant, Information Services
Oregon State University
121 Valley Library
Corvallis, OR 97331-4501
Voice: 541-737-4514
Fax: 541-737-3453

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Important Information for Jumpstart Libraries

This information is provided for the participants in the Oregon Internet Connectivity Grant Program, particularly those who attended the Internet Bootcamp training session at Oregon State University on September 16 & 17, 1996. Starting in January 1997, Stephen Mosley will no longer be available for on-site technical support or training. Additionally, Stephen will be taking a leave of absence from the University until further notice. If you have questions or remarks that can be resolved by telephone, please call the phone number provided above, or call Rushton Brandis at the Oregon State Library. In the future, Oregon State University anticipates working on similar projects that will involve public libraries and the development of Internet-based information resources. Consequently, we have included some questions for you to consider and return at your earliest convenience. Thank you for working with us to provide Oregon with access to a greater variety of resources and information.

School/Library: Lake County Library

Librarian: Cecilia K. Elder

Internet Provider: Goose Lake Computing

Internet Bootcamp Training:

Now that you've had an opportunity to implement the training you received, please consider the following questions:

What was the most valuable portion of the training? I really appreciate just becoming familiar with the Internet because our Library was not hooked up to the Internet. Everyone was most helpful with our questions and we really learned quite a bit. I would caution you on the next training, to make sure each Library would be aware of the cost of hooking up. (Electrical and phone charges)

What was the least valuable portion of the training? I could have done without the construction going on constantly while we were there. I can't think of another thing that you could have added.

Has the Oregon Public Library Home Page proven useful to your patrons?

We have used the home page more than any other item because of the scholarships.
It was the part of the Internet everyone goes back to and we have really used it.

Have you had any significant problems for which you would like additional assistance?

I need to get read a book on the "windows" program

Do you think it would be useful to have your own Library Web page with local
community information? If so, would you like help in developing such a page?

No

If you have any additional comments, please include them here:

Stephen you did a great job and you were most helpful to Karen who hooked up
the Interenet. I know that we were not your only Library.

Thank you for responding to this message.

v1:21PM12/18/96

Stephen Mosley
Research Assistant, Information Services
Oregon State University
121 Valley Library
Corvallis, OR 97331-4501
Voice: 541-737-4514
Fax: 541-737-3453

DRIFTWOOD LIBRARY

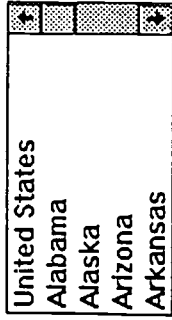
SEARCHING THE WORLD WIDE WEB: STRATEGIES AND EXAMPLES

NOTE: DRIFTWOOD LIBRARY IS
NOT RESPONSIBLE FOR THE
CONTENT OR ACCURACY OF
ANY MATERIAL FOUND ON
THE INTERNET OR ANY
WORLD WIDE WEB SITE.

IF YOU CITE MATERIAL FROM THIS HANDOUT
PLEASE GIVE CREDIT TO THE CORRECT SOURCE.

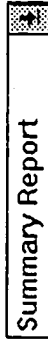
TIPS

These interactive forms which allow users to query for specific information. Geographic locations can be selected by clicking on them from a map, or from a scrollable list.



After highlighting a selection in a scrollable list, remember to click on the **Submit Query** button to activate the request.

To select a particular subject or report within a database, you will often use a pop-up list.



Click once on the down arrow to see additional selections in the list. Click on a particular item to select it within the list. Remember to click the



button to activate the request.

Both the on-line documentation and the database subject matter can be searched for a keyword. Click in the text box and type a keyword.



Then click Start Search to activate the request. Procedures may vary depending on your browser. Look for these other user-friendly features:

On-line documentation

Navigational buttons

Context-sensitive help from any screen



AIDING REMOTE LIBRARY ACCESS

A second component of the project is to help public libraries access the Internet. The OSU Government Information Sharing Project is cooperating with the State Library of Oregon and PORTALS to provide hardware, software and training to small and rural school and public libraries in Oregon that have limited or no access to the Internet. This joint venture is termed the "Oregon Internet Connectivity Grant Program."

MORE INFORMATION

Information providers are welcome to point to us from appropriate sites. We appreciate a message informing us of a link. Please direct comments, questions, problems and inquiries to:



The comment mailbox on our home page,
or

Charlene Grass, Project Manager

Kerr Library 121

Oregon State University

Corvallis, OR 97331-4501

541-737-7302

grassc@ccmail.orst.edu

Participants in the Government

Information Sharing Project include:

Robert Baker technical support/design

Karyle Butcher public liaison

Judy Cross user liaison

Gaylon DeGeer technical support

Richard Griffin personnel/administration

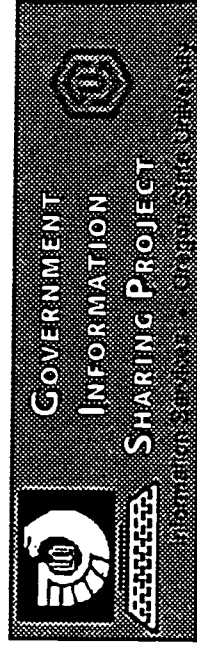
Kathy Howell technical support/design

Jacquelyn Miller research assistant

Carolyn Ottow user liaison

ron stillinger research assistant

THE GOVERNMENT INFORMATION SHARING PROJECT



<http://govinfo.kerr.orst.edu>

A Government Data Resource on the World Wide Web

"Your www resource is outstanding. I think you have democratized this information so that nearly anyone can use this resource. Well done." -user comment

Created and maintained by

OSU Libraries

Information Services

Oregon State University

with support from

The U.S. Department

of Education

INTRODUCING Oregon State University's Government Information Sharing Project

With funding from the U.S. Department of Education, the OSU Library has developed a World Wide Web site to provide remote access to government information. Now anyone with an internet connection and a forms-capable browser can access these government resources issued in CD-ROM (compact disc) format.

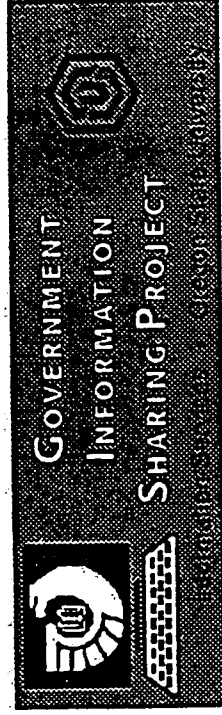
"What a wonderful resource. You have provided exactly the data that I needed tomorrow AM."

The Government Information Sharing Project evolved around the goals of both convenient and broad access to government information, especially for the general public and remote users. Through a user-friendly graphical interface, users query data which are extracted from the CD, compiled, and presented on the fly at impressive speed. The site is compatible with a variety of browsers and computing environments, including text-only.

Users of the site may range from libraries to businesses, researchers, schools, journalists and local governments. Potential and reported applications include education, quick access to useful statistics, community development or electronic democracy projects. As of February, 1996, the site offers nine major databases and continues to grow.


INFORMATION


In the area of demographics, the U.S. Census Bureau's USA Counties compiles useful social, economic and governmental information spanning several years and sources for all U.S. counties. The 1990 Census of Population and Housing



<http://govinfo.kerr.orst.edu>


DEMOGRAPHICS


 USA Counties: 1969-1994

 1990 Census of Population and Housing
Age, Sex and Race: 1990-92


ECONOMICS

 Regional Economic Information System: 1969-1993

 1992 Economic Census
Census of Agriculture: 1982, 1987, 1992

 U.S. Imports/Exports History: 1990-1994
Consolidated Federal Funds Report: 1984-93

EDUCATION

 School District Data Book Profiles: 1989-1990

STF3A and STF1B reports are available for the Northwest and will be expanded to all states. The Census Bureau's Population Estimates by Age Sex and Race for states and counties between 1991 and 1992 are also on-line.

Economic databases available include the Regional Economic Information System (REIS), from the Bureau of Economic Analysis, and the 1992 Economic Census, 1992 Census of Agriculture and 1994 U.S. Imports/Exports History, from the Census Bureau. The 1993 Consolidated Federal Funds Report (CFFR) covers Federal Government expenditures by program to the city and township level of detail.

In the educational field, the new School District Data Book, an information resource of the National Center for Educational Statistics (Department of Education), offers social, administrative and financial profiles on each school district in the nation.



OTHER GOVERNMENT WEB SITE

In addition to the CD-ROMs, the homepage includes links to other government data available on the Internet, such as legislative information, texts of bills, regulations and court decisions.

The Government Information Sharing Project has been rated in the top 5% of the Web by Point Communications, as a "hot site" by Starting Point, and for good presentation and content by Yahoo.

Over, for tips on using the site

The background of the page is decorated with several thick, parallel diagonal stripes running from the top-left towards the bottom-right. These stripes are filled with a dense, grainy texture, creating a high-contrast, abstract pattern.

Navigating the Internet

Using Netscape

Copyright, 1995, Information Services, Oregon State University

What is the World Wide Web?

- The World Wide Web (web for short) is a collection of Internet-accessible hypertext, text, sound, graphics, and video (multimedia) information.
- It originated at CERN, Switzerland, and now has many participants.

What is Netscape?

- Netscape is a Web browser that allows retrieval and viewing of multimedia documents.
- It is a fully integrated Web browser, gopher client, ftp utility, and newsgroup reader.
- Information located around the world is interconnected in an environment that allows you to travel through information by clicking on hyperlinks—terms or images in documents that point to other related documents.

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Web Addresses

- Every page has a unique URL (Uniform Resource Locator)
- A URL is used for identifying an item in a computer network
 - i.e. <http://govinfo.kerr.orst.edu>
- Each Web site has a home page. The home page gives an overview of what type of information is stored on the site

Understanding Addressing

- Components of a URL
(<http://govinfo.kerr.orst.edu/jumpstart/jump.html>)
 - <http://> (Hypertext Transfer Protocol). Identifies a manner for interfacing computer information
 - govinfo.kerr.orst.edu (server that stores the information you seek)
 - [/jumpstart/jump.html](http://govinfo.kerr.orst.edu/jumpstart/jump.html) (location of an item on the server)

Hot Links

- A hot link is a connection from one page to another. To move from link to link, place the cursor on a highlighted text item or graphical icon and click once after the cursor turns into a hand.
- To move back a screen, click on the "Back" button in the Tool Bar.
- Hotlinks change color once you've visited the link.

Web Searching

- Various search engines are available that allow you to locate information on the Internet.
- To access these search engines, click on the "Net Search" button.

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Bookmarks

- Bookmarks allow you to save URLs for easy access.

- To set a bookmark, choose "Add Bookmark" from the Bookmarks pull-down menu.
- To access a bookmark, choose the appropriate bookmark from the Bookmarks pull-down menu.
- To view info about your bookmarks, choose "Bookmarks" from the Window pull-down menu.

Printing and Saving Documents

- To print a page, click on the "Print" button in the Tool Bar.
- To save a page, choose "Save As" from the File pull-down menu.

Preferences

- Allow you to configure various settings.
- Choose the Options pull-down menu:
 - Under "General Preferences," fill in the home page location.
 - Under "Mail and News Preferences," click on the Identity tab, and fill in Your Name, Your Email, and Organization fields.

Accessing Gopher & FTP Servers

- To attach to a Gopher server using Netscape, open a new URL and type:
 - gopher://gopher.orst.edu
- To attach to an FTP server using Netscape, open a new URL and type:
 - ftp://ucs.orst.edu

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Before using what you found on the Internet,
ask yourself:

'Who Owns The Information?'

When Gutenberg first turned the crank on his printing press, he not only revolutionized the printing industry, he also paved the way for the mass distribution of information. The invention of the movable-type press eventually made it possible for anyone—rich and poor alike—to purchase a cheap newspaper or book and be instantly enlightened on the news of the day. In short, access to information was no longer the privilege of the wealthy, educated, and well-connected.

More than 500 years later, the Internet is having a similar revolutionary effect on the way information is communicated among individuals. Instead of simply being passive readers of data, Internauts now have the chance to actively share their own information—ranging from theories on why the dinosaurs became extinct to pictures of family pets—with the entire world. The overwhelming success of this two-way, information street is illustrated by the popularity of the World Wide Web, which now contains more than 20 million pages of information and is growing at a rate of a few thousand pages each day.

Ironically, however, it is precisely the Internet's ability to absorb, digest, and disseminate vast amounts of information that has forced users to address the issue of online property rights. Although scholars, government officials, businesses, and others have demonstrated the benefits—such as global data sharing, fingertip access to international resources, and a universal audience—of the Internet, less honest users have taken

advantage of the free access on the Internet to plagiarize texts and ideas, violate copyright laws, and pirate software. Fortunately, it's possible to diminish the negative effects of these criminal activities by combining the strong arm of copyright legislation with a little foresight and diligent awareness. We've outlined the essential principles of your rights as a publisher of information on the Internet and how you can protect yourself against those who would steal your online property.

■ Copyright On The 'Net

The copyright laws that apply in the virtual world of the Internet are fundamentally no different than those that apply to any copyrightable work—such as a training manual, a poem, a musical score, a computer program, or a home video—in the physical world. Since the U.S. Copyright Act was revised in 1988 to meet the conditions of the Berne Convention, the primary international copyright treaty, every copyrightable work completed after March 1989 gains its copyright protection immediately upon creation.

Furthermore, when any copyrightable work is completed, either on- or offline, it instantly becomes the property of its owner. The owner, who may be either a work's author or creator or the business or individual who commissioned a work, is granted certain legal rights over the work. The most important rights are the exclusive rights to copy, modify, sell, and distribute the copyright-protected work. These rights are seldom violated in the physical world. Most people respect the property of

others and have little reason to claim ownership of works they did not create.

Many online users mistakenly—albeit understandably—believe a different set of copyright laws apply online, however. These users fail to comprehend the purpose of the copyright legislation, and they don't realize the potential consequences of failing to respect these laws. Nevertheless, ignorance is not a legal excuse, and it's important for all Internet users to be aware of their rights as information users and providers on the Internet.

Users first must understand the reasons for promoting copyright legislation. "The ultimate purpose of copyright legislation is to foster creation and dissemination of intellectual and artistic works," says G. Peter Albert Jr. of the Harness, Dickey & Pierce law firm in Ann Arbor, Mich. "An important secondary purpose is to give authors the reward due them for their contribution to society," he adds.

Creating such an environment on the Internet invites information distributors to share their information with the world. This ensures the continued dissemination of information online and moves the Internet a little closer toward becoming the world's first—and best—source for information. Conversely, failing to create such an environment could have a devastating effect on the growth of the Internet, by stifling information distribution and discouraging the promulgation of original ideas.

Users also should realize that all original information posted to the Internet after March 1989 is the legal property of the person or business that owns the information. This covers



virtually every text file, graphics file, and software application found online. Even if a file does not reveal that it's copyright protected, you still can be prosecuted for infringing on that copyright.

Therefore, for your own legal protection and out of respect for the work's author, it's prudent to assume that all information found on the Internet is protected by copyright laws. If you intend to use a piece of information for wide distribution, plan to charge a fee for information you acquired from the Internet, or mean to use information found on the 'Net for some other personal reason, you should contact the owner of the material, the Copyright Office, or a lawyer who specializes in copyright law for legal advice.

Just as you should be aware of your responsibilities as a user of information, you also should know how to protect your rights as a publisher. The most effective means of copyright protection is to register all original works with the U.S. Copyright Office. Doing so guarantees that anyone who is caught violating the copyright protection of any work will be punished to the full extent of the law.

Although it may seem difficult to enforce copyright protection on the Internet, in actuality it can be done quite effectively, says Lance Rose of the Lewis & Roca law firm in Phoenix and author of the book "NetLaw."

"Though you can't keep any one individual from copying something illegitimately," Rose says, "you can make it so hard for them that you force them into some type of underground economy."

Fortunately, registering a work with the Copyright Office is as easy as licking a stamp or two and simply involves sending a copy of the work, an application for registration (obtained from the Copyright Office), and a \$20 registration fee to the U.S. Copyright Office. Within six months, you will receive notice that your work has been registered. Acquiring copyright protection for the information you post to the Internet not only protects your intellectual property but also promotes the Internet as a credible distributor of information. ●

by Jeff Davis

Special thanks to Larry E. Vierra of the Fleisher, Dubb, Meyer and Lovejoy firm in San Francisco who provided legal information for this article.

For More Information:

U.S. Copyright Office
Register of Copyrights
Copyright Office
Library of Congress
Washington, D.C. 20559-6000
(202) 707-3000
<http://lcweb.loc.gov/copyright>

For Applications:
Publications Section LM-455
Copyright Office
Library of Congress
Washington, D.C. 20559-6000
(202) 707-9100

Protecting Yourself Online

Below are four brief descriptions of how copyright laws protect some of the information distributed online.

E-mail. Every line of text contained in an electronic mail message receives copyright protection and usually is considered the property of the sender unless the message occurred within a business system, in which case the business may retain some ownership rights on in-house correspondence, says Lance Rose of the Lewis & Roca law firm in Phoenix and author of the book, "NetLaw."

In the case of E-mail, a distinction also must be made between privacy rights and the ownership rights granted by copyright laws. Some online systems reserve the right to disclose the contents of personal E-mail, usually for legal or commercial purposes. However, the disclosed information cannot be published or distributed outside the system without the permission of the sender. Check your service's terms of service for details on its policy.

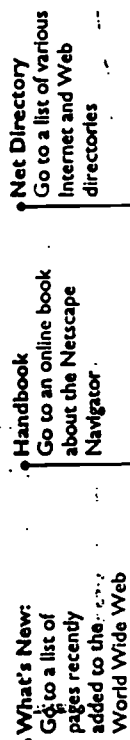
Text files. Online text files, including original works of fiction, poetry, research papers, biographies, financial reports, correspondence, essays, journal entries, and notes, receive all of the same copyright protection that their hard-copy cousins enjoy. Some users, however, mistakenly believe that online texts are public domain because they are free and have an expansive circulation. Other users fail to respect the copyright protection of online texts because their authors often are unpublished in hard-copy format. Remember: Justice is blind, and a user who violates the copyright protection of an obscure work will be prosecuted just as harshly as a user who violates the copyright protection of an important work.

Graphics files. Like text files, online graphics files, including digital images,

animation, clip art, and charts, receive complete copyright protection. All images found online are the property of the artist or photographer who created those images. Therefore, unless they are clearly marked otherwise, online graphics and images cannot be copied for use at another Internet site or in a newsletter or magazine without the artist's permission. Similarly, online images should not be used to create new images or collages without the artist's permission.

Software. Software applications found online are either known as shareware, which require payment for usage, or freeware, which do not require payment. These applications, much to the surprise of users everywhere, were purposely placed online for free distribution. Unlike pirated software, which is software that is not supposed to be distributed freely online, shareware and freeware are marketing ploys to attract users to a product. In the case of shareware, the users get to sample a product before buying it. If the users aren't satisfied, they don't register or pay for the product; if they like the product, however, they're obligated to register and pay for it. Freeware, on the other hand, is designed to entice users to try a full or limited version of a product for free in the hopes that they'll enjoy it enough to purchase another program or remaining parts of a limited version from the manufacturer.

Although these programs are available to anyone with an Internet connection, they remain protected by copyright laws. Stealing the programming code to create a new program, repeatedly using shareware without registering it, or charging other users for freeware are just three examples of shareware and freeware copyright infringement.



EXPLORING THE NET

COMPANY & PRODUCTS

GENERAL STORE

NEWS & REFERENCE

ASSISTANCE

COMMUNITY

SERVER GALLERIA

Net Search

Go to a list of various Internet and Web search tools

Software
Go to information
on obtaining Naviga
software upgrades

11 FEB 1964

Back
Go to the previous page in History list

Forward
Go to the next page in the History list

Home
Go to your home page

Reload
Reload the current page

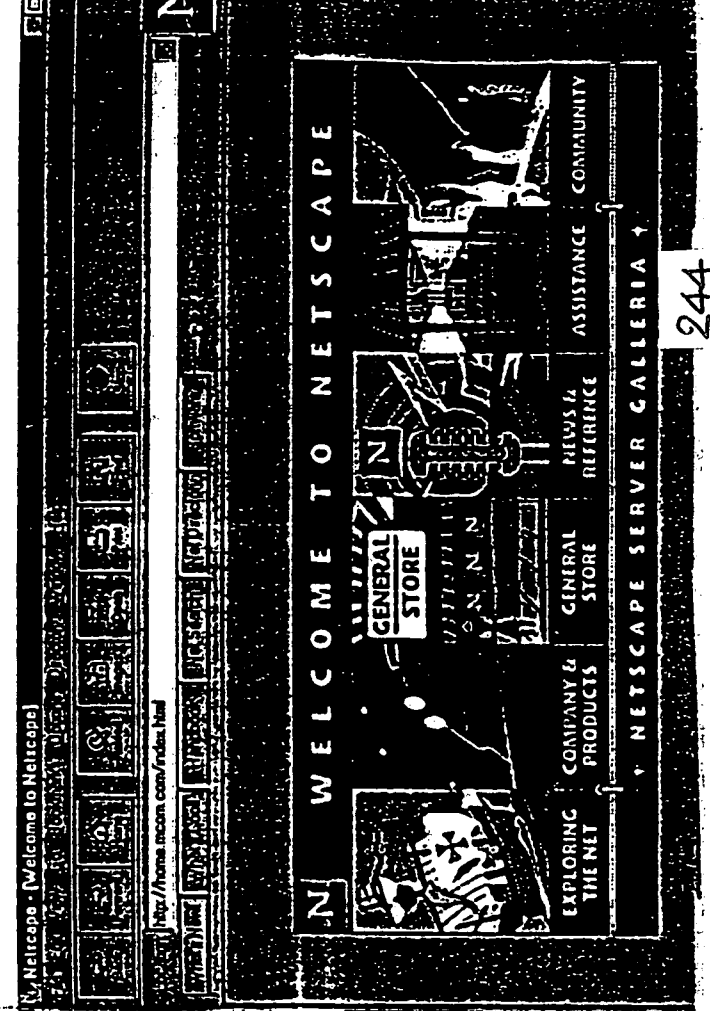
Open
Open a location (you enter the URL)

Find
Find text in the current page

Print
Print the current page

Images
Display images in the page (when Auto Load Images is unchecked)

Stop
Stop loading the current page



COOL WEB SITES

This is the bibliography for the "Cool Web Sites" session held at the 2nd Annual Gateways to Knowledge Conference sponsored by the Oregon Library Association's Library Support Staff Roundtable on July 19, 1996 in Eugene, Oregon. The session explores World Wide Web sites which were selected for their wide appeal and usefulness. These sites are relatively stable, have identified authority and either provide substantive information or are links to key sources.

Directories

- American Universities' WWW Servers
Information about other colleges and universities in the United States.
<http://www.clas.ufl.edu/CLAS/american-universities.html>
- Switchboard
Free nationwide residential and business addresses and phone numbers.
<http://www.switchboard.com>

Government and Business

- United Nations
Lots of useful information and graphics, including a map of UN peacekeeping operations.
<http://www.un.org>
- Federal Web Locator
One stop shopping for US government information on the Web.
<http://www.law.vill.edu/Fed-Agency/fedwebloc.html>
- US Government Documents
The University of California GPO Gate is a good source for recent, full-text government documents.
<http://www.gpo.ucop.edu>
- Oregon State Library
Includes links to Oregon Administrative Rules (OAR), Oregon Revised Statutes (OSR), and the Oregon State Library catalog.
<http://www.osl.state.or.us/oslhome.html>
- Investor Relations Resource
Links to home pages for public companies
<http://networth.galt.com/www/home/equity/irr/>
- EDGAR
Financial information brought to you by the Securities and Exchange Commission
<http://www.sec.gov/edgarhp.htm>

Travel and Places

- Subway Navigator
<http://metro.jussieu.fr:10001/bin/cities/english>
- Internet Travel Service
Book yourself on the cheapest available flight here.

<http://www.itn.net/>

- CityNet
"The most comprehensive international guide to communities around the world." Great for tourists and researchers.
<http://www.city.net/>
- GORP (Great Outdoor Recreation Pages)
Where to go and what to do outdoors. Includes useful information for visiting our nation's parks, forests, and monuments.
<http://www.gorp.com>
- Oregon Inns and Travel Guide
Find that perfect place to stay in Oregon. Connects to the Travel Guide Online which features inns and bed & breakfasts in other western states.
<http://www.nbn.com/travel/oregon/OR.html>

Health and Science

- Healthwise
Designed for students at Columbia University, this site provides answers to a multitude of common health inquiries. Ask Alice if your question is not addressed.
<http://www.columbia.edu/cu/healthwise/>
- NetVet
Intended for veterinarians and animal lovers alike, this site lists resources on the Internet by animal. Great for kids too.
<http://netvet.wustl.edu>
- Nine Planets
Images and lots of information about our solar system for kids and adults.
<http://seds.lpl.arizona.edu/nineplanets/nineplanets/nineplanets.html>
- NASA Spacelink
Designed for teachers, this site contains instructional ideas, materials, colorful images, resources, and everything you want to know about NASA programs.
<http://spacelink.msfc.nasa.gov>

News and Entertainment

- MovieWEB
Has sneak previews and other information about movies, including top hits last weekend.
<http://movieweb.com/movie/movie.html>
- CNN Interactive
Great for up to the minute news or for searching recent events.
<http://www.cnn.com/>
- New York Times
At this moment, the New York Times is free, online and interactive.
<http://www.nytimes.com>
- AJR Newslink (American Journalism Review)
Links to hundreds of newspapers, broadcast networks, and magazines.
<http://www.newslink.org>

- Pathfinder

Find business and popular press articles here full text. Very commercial.
<http://www.pathfinder.com>

Museums and Genealogy

- Museums in Paris

Wonderful images of works in the Louvre and other museums and galleries.
<http://www.paris.org/Musees/>

- Museum of Modern Art

<http://www.moma.org>

- American Memory

Primary source and archival materials relating to American history and culture, including manuscripts, sound recording, photographs and motion pictures. The Library of Congress's key historical contributions to the national digital library.
<http://lcweb2.loc.gov/amhome.html>

- Genealogy Home Page

A genealogist's paradise.
<http://ftp.cac.psu.edu/~saw/genealogy.html>

Weather

- Oregon Climate Service

Colorful maps. Your one stop shopping spot for information on Oregon weather.
<http://ocs.ats.orst.edu/>

- Intellicast

Your online guide to weather, ski and ocean conditions. Spiffy images and good US coverage with details for some major cities, including Portland.
<http://www.intellicast.com>

Subject Access to the Internet

- Yahoo

Highly recommended for quickly finding resources by subject.
<http://www.yahoo.com/>

- Internet Public Library

University of Michigan's collection of subject guides. Check out the reference room especially.
<http://ipl.sils.umich.edu>

- GNN Best of the Net

A good place to find cool sites. These are award-winners, past and present.
<http://gnn.com/wic/botn/index.html>

Barbara Valentine

Reference and Systems Librarian
Linfield College
McMinnville Oregon 97128

Smarter ways to search the Web

When you're in a window-shopping frame of mind, the Internet feels like the world's biggest info-mall. Hopping from one site to another sweeping up odd facts can be exhilarating. Approaching the Net, on the other hand, with a specific quest—say you want the symptoms and treatments for an esoteric medical condition—could find you running from one blind alley to the next.

It may not be the Internet that's to blame but your search skills. A sure sign you need help is that your queries unearth thousands of sites. Who could possibly find a needle in so many haystacks?

Recently I spent two frustrating, unproductive hours trying to find something written for laypeople on eosinophilia, a rare blood condition diagnosed in a friend. After that experience, I turned to Eric Brewer, co-architect of the new HotBot search engine. He taught me how to narrow my searches and find relevant documents much more easily. His tips are well worth passing along.

As with any do-it-yourself project, the first step is choosing a tool. You can employ a so-called directory, which files hundreds of thousands of documents into categories such as entertainment, health and news. Or you can work with an index, which analyzes the full text of millions of Internet documents and ranks them by the number of times a given keyword appears. A directory is OK for general searches (everything about basketball). For a finely honed query (the University of California women's basketball schedule), you want an index.

Toolbox. Several directories and indexes are available for free on the Internet: the Search.com site (<http://www.search.com>) contains dozens. Yahoo! (<http://www.yahoo.com>) is the most popular directory. Alta Vista (<http://www.altavista.digital.com>) is a well-known index. Brewer hopes to make HotBot (<http://www.hotbot.com>), released last month, the most comprehensive and the most current index. (Get ready for the battle of the search engines.)

For a precise search, Brewer recom-

mends linking three or four keywords rather than plugging in a single one. That was good advice for me. A search on *eosinophilia* yielded 1,018 sites. Adding *symptom* and *treatment* winnowed the list of matches to a far more manageable 83.

Some indexes, like HotBot, automatically assume an *and* between your keywords and generate a list only of those sites that use all the words. Other indexes, like Alta Vista, assume an *or* and spew out sites that use *any* of the words—an unfiltered approach that produces a longer list. Try adding *and*, or a plus sign, between the words.

Sometimes a phrase works better than several different words. Put quotation marks around the phrase and most search tools will search for sites in which the entire phrase is intact. Last week I wanted to find every article I've written that has appeared online, so I typed the words *Mary Kathleen Flynn* into HotBot. A list of 1,756 sites showed up—most of them mentioning people with names like Mary Simpson, Kathleen Hall and Frank Flynn. But when I searched by using "*Mary Kathleen Flynn*" as one phrase, I eliminated more than 95 percent of the sites. The remaining 87 matches were articles I'd written

or mentions of me in other documents.

If these techniques fail to limit your search to an acceptable length, Brewer recommends an expert's trick: *exclude* certain words. Often you can do this with the minus sign. Don't know what to exclude? Read several of the documents and look for a pattern. For example, Brewer noticed that many of the documents in my eosinophilia search mentioned the word *pulmonary*, and I knew my friend's trouble was not in her lungs. Using the multiple-word search and excluding *pulmonary* narrowed the list to 38 documents. I could handle that. More to the point, I got some answers.

All I need now is a superfast phone line. Then all my Internet woes will be over. For now, anyway.

Mary Kathleen Flynn can be reached via E-mail at 73552.3326@compuserve.com



ATTRACTIONS

► **Be a beast.** Looking for a new pad—a lily pad, perhaps? The new Mombasa Lagoon at the San Diego Wild Animal Park is a 5-acre outdoor complex featuring larger-than-life interactive habitats that let guests see the animals' point of view. Leap like frogs across giant lily pads. Or crawl out of a jumbo cracked egg—an oversize steel-and-foam replica of the nests used by European white storks.



TELEVISION

► **The Gate of Heavenly Peace** (PBS, June 4, 9:00 p.m.). This carefully reported, unsentimental documentary reconstructs the Chinese student and worker protest of 1989. Filmmakers Carma Hinton and Richard Gordon deftly weave archival footage and tapes from Tiananmen Square, or Gate of Heavenly Peace, the movement's epicenter. Participants and observers flesh out the scenes with on-camera accounts.

KING HOLLYWOOD

Douglas Fairbanks's swash-buckling heroics made him one of Hollywood's first idols. Now Kino on Video is releasing 10 tapes of his classics, most on video for the first time (\$24.95 each). Film scholar John Tibbetts suggests these silent-era Fairbanks gems, all included in the collection Kino is releasing:

- **The Nut** (1921). His last precostume comedy.
- **Don Q, Son of Zorro** (1925). Fairbanks stars as both the savvy swordsman and his son.
- **The Black Pirate** (1926). First mainstream feature shot entirely in Technicolor.
- **The Gaucho** (1927). His darkest film.

COMPILED BY KENAN POLLACK



How to Search the Web A Guide To Search Tools

by

Terry A. Gray

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Using the various search tools on the web is enhanced by knowing how they were actually designed, and especially by knowing the specific rules--all too often quite different--for each tool. I have tried to address both these needs. I have arranged the search engines and catalogs in order of usefulness, provided a link to them in the title of each section, and then spell out, in short form, the rules for using them. I have provided some short examples, but for detailed examples consult the help documentation available at the site. The goal of this article is to help the new user get the most useful "hits" when using the various tools. At the end I have placed a handy little table which summarizes certain common characteristics among the search engines, some general search tips, and cross-references to other useful articles.

AltaVista

AltaVista is the premier search engine on the web. It has the largest, most inclusive indices. That does not mean it is the only one you need, or in all situations the best one to use. Different robot and indexing strategies have resulted in different results when using the various search engines. AltaVista, however, returns consistently useful information, but since no editorial decisions have been made regarding content, it also has the largest "noise to signal" ratio.

AltaVista allows searching of both the web and many Usenet Newsgroups. It allows control of the result lists in a standard, compact, and detailed format. It provides both simple and advanced searches. Advanced searches include all the features of simple ones, and also allow the use of boolean and proximity operators, grouping of terms by parentheses, and results ranking by keyword.

Simple Searches

For an effective search, it is best to enter as many search terms or phrases which exactly qualify the subject in which you are interested. The more precise you can be by offering more exact terms, the better the results.

Case sensitivity: Search terms entered in lower case letters are case insensitive. The use of capitalized terms (or accented letters) makes the term case sensitive. **HotDog** finds only the terms spelled exactly with that capitalization; **hotdog** finds all occurrences of the term, regardless of capitalization. **López** only finds a word spelled exactly that way.

Phrases: To group search terms into phrases, include them in double quotes. "**Abraham Lincoln**" finds occurrences of the name Abraham Lincoln, capitalized in just that way. Another way to link words into phrases is to insert punctuation between them: **Abraham;Lincoln;Gettysburg;Address**.

Required Terms: To require that one of your terms be included in the document being indexed, preface (the formal term is *prepend*) it with a + symbol: **+Hot Dog**. There must not be a space between the + and the term.

Prohibited Terms: To prohibit the inclusion of a term from a document for which you are searching,

prepend it with a - symbol: -mustard. To find a reference to F. Scott Fitzgerald without reference to Gatsby: +**"F. Scott Fitzgerald"** -Gatsby.

Wildcards: With simple queries you are allowed to enter a wildcard character at the end of phrases which will substitute for any combination of letters. The asterisk (*) is AltaVista's wildcard character. For example, butt* will get all occurrences of butt, butts, butter, button, etc. The asterisk cannot be used at the beginning or in the middle of words. It will substitute for up to 5 additional lower case letters.

Rankings: AltaVista will assign a confidence ranking to the hits it returns based on the following:

- The query terms are found in the first few words of the document (especially the title of web pages).
- The query terms are found in close proximity to one another in the document.
- The document contains more of the search terms than other documents.

These factors are weighted, and the document with the highest confidence rating is given a score of 1.000. All others are given decimal scores less than 1.000, in order of confidence. This does not mean that the document rated 1.000 is the best source. It only best meets the ranking algorithm. Only rarely is the "best" source ranked first, unless you know the specific title of the document for which you are searching. For example, to find the document "Mr. William Shakespeare and the Internet" a search for that phrase, in double quotes, will find the exact web page, but entering the search terms separately, or just searching for "shakespeare" will result in too many non-specific hits.

Another way to search for a document with a known title is to enter the keyword title: in the search window and follow it with the title in double quotes: title: "Mr. William Shakespeare and the Internet". AltaVista allows searching within specific html tags like this for anchors, applets, hosts, images, links, text, and urls also. The usage is: host:palomar.edu, etc. See the site help pages for more details.

The most useful advice for searching with AltaVista, since its indices are text based whole words, is to be as precise as possible in describing what you are looking for, while excluding things in which you are not interested. "Viet Nam" +Saigon -conflict -war, will find information on Viet Nam and in particular about Saigon without finding information on the conflict.

Advanced Searches

The same rules for capitalization, phrases, wildcards, required/prohibited terms, apply to advanced queries, and in addition the use of boolean searching, proximity operators, and logical groupings with parentheses are allowed. These are only available if you select an advanced search from the AltaVista main page.

Boolean and Proximity Searching: AltaVista supports the use of the binary operators AND, OR, NEAR and the unary operator NOT. You may use the following symbols in place of the words: & (AND), | (OR), ~ (NEAR), ! (NOT). It is a very good idea to use the words rather than the symbols, since the words are easier to remember and common to other search engines. You may enter the operators in lower or upper case letters, but it is probably best to use uppercase to make them stand out from ordinary search terms and make the logic of the search more apparent. If these words are part of the terms for which you are searching, they must be enclosed in quotes. It is best to group your terms within parentheses to avoid confusion, but this is not required.

Examples:

- horses AND carriages
- "Abraham Lincoln" AND "civil war"
- ("Abraham Lincoln") AND NOT ("civil war")
(Note: Do NOT use x NOT y, it must be x AND NOT y.)
- "Thomas Middleton" OR "Beaumont and Fletcher"
- (dogs OR cats) AND ("pet care")
- "William Shakespeare" NEAR internet

Page 2

Results Ranking: With advanced searches you may also specify keywords you wish AltaVista to use in order to confidence rank your results. This is a very powerful feature which will let you control which items are ranked at the top of the hit list. Type the terms you wish AltaVista to weight more heavily in the Results Ranking Criteria box on the advanced search screen before submitting the search. Then, even though the search results will not be affected, the listing of the hits will contain those in which you will probably be most interested at the top.

Excite

Excite uses a combination of text and subject indices to search either by **keyword** or by **concept**. Concept searches, according to the Excite authors, find documents related to the idea of your search, and not just documents explicitly containing the search terms you enter. From the initial screen you choose which way you would like to search, by clicking the keyword or concept radio button. Concept is the default. You may search web documents, reviews, usenet newsgroups or classifieds. Simple or more advanced features are entered in the same search box. There are not separate entry screens for either type of search, but advanced features like boolean searching and logical grouping are supported. You may not control the appearance of the hit list into standard, summary, detailed formats as you can with some other search engines.

As with all search engines, the more descriptive search terms entered in the search box, the fewer relevant hits will result. Case sensitivity and words grouped into phrases are not observed in the same way AltaVista observes them. Because of the way the ranking algorithm works, the more times a word is entered in a search window, the higher documents containing that word will be ranked: dog dog dog cat will rank dog pages higher than cat pages, but find both.

The use of **required terms** and **prohibited terms** is the same with Excite and AltaVista. Precede a required term with a + symbol and a prohibited term with a - symbol: +football -rugby -soccer.

Boolean Searching: Excite supports the use of the binary operators AND, OR, and AND NOT and the unary operator NOT. It also supports grouping of terms within parentheses to create complex logic. The default Excite keyword uses an implicit OR, that is, it searches for documents containing ANY of the search terms specified, though the Excite authors describe this as a "fuzzy AND", meaning documents containing both terms are weighted higher, but either term qualifies. Booleans and grouping allow for more specific results.

Examples:

- (illegal AND immigrant) AND NOT (Mexico)
- alien OR ufo
- alien AND NOT ufo
- football AND (rugby OR soccer)

The use of multiple spellings in the same search window can increase the chances of hits:
Dostoyevski Dostoevski Dostoevsky.

Rankings: Excite ranks its hit lists in order of confidence, with a percentage factor for what it feels is the best fit for the document returned and the search terms entered. The document at the top of the list will not necessarily be 100%. As you scan the hit list, look for a document that is very close to the one you want, then click the little button next to the confidence rating. The search will be re-performed using search criteria based on the indexing of that particular document, and a new list will be produced with the one you chose rated 100% and other hits ranked based on their similarity to that one.

Webcrawler

Webcrawler, now sponsored by America On-Line, is an outstanding search engine very much in the mold of AltaVista. In fact, it has more power than AltaVista in implementing advanced features such as the proximity operators NEAR and ADJ. It also includes a catalog of pre-classified subjects (directory services) by editors at GNN. It implements a feature of further searching based on pre-set search terms from the subject catalog, very much like Excite. (This feature hides behind the Spidey button. [Sometimes I feel silly writing this stuff.]). Finally, like AltaVista, it is so good in its own right, and associated with such a large company, that it can afford to be less gaudily commercial than Excite or Lycos.

Webcrawler touts "natural language searching," so you can enter a search like "highest mountain in the world." It throws out the noise words, and does a fuzzy AND search on the others, weighting pages with occurrences of all search terms highest, but including pages that contain only one of the search terms. This is the common strategy among the best search engines. Webcrawler is different in that its definition of "noise" words is rather broad. The term "web" for example, is not indexed.

Display Control: On the initial search screen, above the search box, you may select whether you want to see web titles only, or titles and summaries for each hit. You may also select the number of hits per page: 10, 25 or 100. Summary mode will display a brief abstract of the page, its URL, and a numeric version of the confidence ranking.

Confidence Rankings: Next to each hit a little icon which looks something like a June bug larva is displayed. The fuller the larva, the higher the confidence match between the page and the search term. You may see a numeric version of the confidence ranking, for what it is worth, when summary display is chosen. The confidence rankings seem to be nothing more than a count of the occurrences of the search term within a particular document.

Phrases: Like AltaVista, you may enter terms you wish considered as a phrase in double quotes. This means the words must appear next to each other in the resulting document. Combined with single, precise search terms this will yield the best results on the first try: Lincoln "Civil War" "Gettysburg Address" Gettysburg.

Boolean and Proximity Searching: Webcrawler allows entry of the operators AND, OR and NOT in the standard search window. Items may also be grouped within parentheses to create complex logic: Simpson NOT (Homer OR Marge OR Lisa OR Bart OR Maggie).

The real strength of Webcrawler's advanced features is in the implementation of its proximity operators. You may use NEAR/*n*, where *n* is the number of words apart the two search terms should be: Shakespeare NEAR/5 Internet. If a range is not entered, NEAR will return hits on documents where the words are next to each other, in either order. For controlling the specific order two words must appear next to each other, you may use the ADJ operator: reverse ADJ osmosis. In this example, *reverse* must precede *osmosis*.

Webcrawler does not support the use of required/prohibited terms, or wildcard expanders or limiters.

Subject Categories: Another strength of Webcrawler is its implementation of a subject catalog which you may browse. The catalog (and related reviews of web sites) is created by the editors of Global Network Navigator, and is quite good. A feature, similar to Excite's confidence buttons, is the Spidey button which accompanies subject browse mode. By clicking Spidey, Webcrawler will perform a topical search based on search terms for the area of interest pre-entered by the GNN editors. These are called "similarity queries," and are supposed to create optimal results.

On the whole, Webcrawler excels in ease of use and implements some very nice proximity search features, but its indices do not seem to be as extensive as AltaVista or Lycos. It offers some unique special features, such as 'search the web backwards,' to see who is linked to your page, and net statistics.

Many of us who have used the Internet for a while have a fond spot for Lycos from its Carnegie Mellon days when it was truly a Godsend. Since the explosion of the web, better search engines have appeared, but Lycos is still good and fast, if not as sophisticated as some of the others. It offers both keyword and subject searching (the subject searches are called directory services), as well as a Point rating system which rates web pages. Its strong points are its speed, ease of use, and the large size of its indices, which often produce usable results by sheer brute force. Its weakest point is that it does not support boolean searching or any of the more sophisticated searches that can be made with AltaVista, Webcrawler or Excite.

Display Control: To gain any sort of control over your searches in Lycos, you need to click on the "Enhance your search" link on the Lycos front page. You will be taken to a screen which will allow you to:

- Control the type of match between search terms--OR (the default), AND, or match 2, 3, 4...7 terms (more on this later)
- Control the number of hits per page (10, 20, 30 or 40)
- Control the type of match for terms (loose, fair, good, close, strong)
- Control the content of the hit (standard, summary or detailed)

Changing the type of search from OR to AND will result in far fewer hits, of course. The business about matching 2,3,4,5,6,7 terms allows for a degree of fuzzy matching with variant spellings. An example of match 2 terms, different from AND would be: Fyodor Dostoevski Dostoyevski. Documents containing any two of the terms will be returned, but not all three.

Focusing Your Search: You can change (fine tune) the results of your searches by changing the type of matches Lycos considers a success: loose, fair, good, close, and strong. The stronger the match, the fewer sites returned by Lycos.

Inclusion/Exclusion and Rankings: Lycos does not support the required/prohibited term syntax, as does AltaVista and Excite. You may, however prepend a search term with a - symbol meaning that that particular term will not be weighted in determining the ranking of the results: dogs -doberman will still get pages with the term doberman, but the pages with the term doberman will not appear at the top of the list. Lycos ranks each search, rating the best fit as 1.000 and all other hits as less than 1.000. As with the other search engines, it is rare for the site rated 1.000 to be the most useful.

Wildcards: To expand a word with a wildcard, add the \$ symbol to the end of the word. For example, gen\$ to get genetic, genesis, general, and so on. Lycos provides the use of the period character (.) after a word to prohibit its expansion: gene. will get just gene, and not genetics or general.

Opentext

Opentext is in a state of flux from its early days, so the information on the help pages, if you can find them, is no longer accurate. Features and navigation have changed. It is still, however, an excellent search tool.

The default search window is what used to be called the Power Search. Basically, it presents 3 search windows into which a word or phrases can be entered, separated by a qualifier as to where to search (anywhere (default), document summary, title, first heading, or URL) and also separated by booleans (AND (default), OR, BUT NOT, NEAR). It goes like this:

Search for [enter your search term(s)] within [choose where] [boolean option to connect to next search term]. Three terms can be entered and qualified.

Opentext does not support a wildcard expansion character, but does handle plurals nicely. Do not enter plural search terms. Opentext will search for plurals automatically, including such plurals as geese.

Booleans: The effort to make the use of booleans and proximity operators simple has backfired. Entering the

actual operators and grouping terms with parentheses is far easier and quicker than selecting from boxes. Understanding the logical interpretation of the operator is also more difficult when laid out in linear fashion like this.

Proximity Operators: Opentext implements both the NEAR operator, with a non-adjustable range of 80 words, and also the FOLLOWED BY operator (like Webcrawler's ADJ operator where word order matters--once again, with a non-adjustable range of 80 words. Such a large range reduces the usefulness of these operators.

Opentext does not limit whole words, so that a search for the word **head** will also get hits on **headstrong** and **headline**. It will also miss terms if entered in plural rather than singular. Exact, correct spelling is important with Opentext.

Very good features include the ability to see the terms from the referenced page that caused the hit (the 'see match on page' option at the bottom of each hit summary), and the search refining option to 'find similar pages', also at the bottom of each summary item.

Infoseek

Infoseek was once the only Netscape default search engine. It is not the best available. Its virtues are speed and ease of use. Its defects are a lack of sophistication (booleans are not supported) and a 'teaser' approach to showing the first 100 hits and offering to show more for pay. It is both a search engine, and a searchable subject catalog, with options to search Usenet newsgroups, email addresses and web FAQs.

Searches are quasi-case sensitive. Capitalized words are taken as proper nouns and the search is limited. Searching for Babe will find the famous hitter and the famous pig, searching for babe, will also find the Sonny and Cher lyrics. Adjacent capitalized words links them into a phrase. Capitalized phrases must be separated with commas: The Great Bambino, Baseball Hall Of Fame. Phrases may be formed by enclosing the words in double quotes: "i've got you babe". Yet a third way to link words into phrases is to place hyphens between them: wonderful-life.

Required/Prohibited Operators: By prepending a word with a + symbol it requires that the term must be in the documents found by the search. Prepending a - symbol excludes documents containing that term from the search results: +Lincoln -automobile. There cannot be a space between the + or - sign and the affected word.

Proximity operator: Placing words in square brackets causes a hit if they are found within 100 words of each other: [immune disease].

To search Infoseek's 'select sites' (their subject catalog) change the search option from World Wide Web to 'Infoseek Select Sites' on the form provided next to the search term window. There are several other options available, including Reuters news stories.

Yahoo!

Yahoo is not a search engine, but strictly a heirarchically arranged subject index. It has developed over a long time, with lots of editorial care, so the quality is very high. Browsing Yahoo is the best way to surf for good sites when you don't know (or perhaps care) where exactly you are going. It is also the best way to find good 'starter' sites, from which you can branch out to more speacilized ones.

Using Yahoo is simple. Just enter your search term(s) in the search window and click SEARCH. Yahoo will return three types of information: 1) Yahoo categories that match the search term (so you can explore them for cross referencing); 2) Actual matching end-sites; and 3) The Yahoo categories from which the various pages

are indexed--sort of a 'much broader term' cross reference. Though you cannot create very sophisticated searches as with the search engines, you can control:

- where to search: Yahoo (default), Usenet or Email Addresses
- whether to OR or AND (default) the search terms
- whether to search on substrings (find whole words from partial strings--like headlines when searching for head) or complete words (find headlines only when entering the term headlines). Substrings is the default.
- Control the number of matches per page to 10, 25 (default), 50 or 100.

You may access these controls by clicking the small 'options' link next to the main search window.

Yahoo has a couple of other unique features: At the bottom of each results page links to search engines are provided. By clicking on Yahoo Remote you can invoke a secondary Netscape window which you can minimize and then maximize whenever you need to do a quick search.

If the essential search engine is AltaVista, the essential subject catalog is Yahoo! Don't surf without it.

NlightN

NlightN is more along the lines of the classical information/document delivery service, like Ebsco. The difference is you can use NlightN's Universal Index free, and only pay if you order a document. It indexes not only the web, but reference works, news wires, books, dissertations, and many public and private databases. NlightN bills itself as 'the world's largest table of contents,' but this is the sort of hype one gets used to using the Internet. AltaVista is the largest, but it depends on what you mean by 'table of contents.' Remember, this is a for profit organization, but you cannot spend money by accident, and are free to use the databases for research. They ask that you sign up for a free NlightN account, but this is not required. If you do, you gain some searching power, but you are free to make the call. If you are serious about using the service for pay, get the FAQ available from the help pages.

NlightN's search window is simple. Just enter the term(s) and click FIND. You will be taken to an intermediate screen which tells the occurrence of the term(s) in:

- the Information Databases.
- the current News Briefing.
- the Archived News.
- the WWW Internet Index.
- the Desktop References.
- the Discount Bookstore.

Choose WWW by clicking on the link. You will find that the web is less thoroughly indexed than other areas, yet you may still find some useful information.

Booleans: The default connector between search terms is AND. That is, there is an implicit AND between each term. In order to construct your own boolean searches, use the symbol & for AND, | for OR (the vertical bar, or piping symbol), and ^ for NOT (the circumflex or caret). For example (Army & Navy) ^ (Air Force). By grouping in parentheses (Air Force) NlightN will consider the term both as a phrase and as two search terms. NlightN is the exception to most search engines in that entering fewer search terms is better than many. Your search will proceed faster.

What is said above applies before you sign-up. After you sign-up you will be given a userid and password, and your search window will look different. You will be given the choice to search within fields (such as traditional author/title/subject fields in a library catalog) and you can control the scope of the databases being accessed from the search window. You will also have access to a LIMIT/FILTER and a SEARCH LOG option

above the search window so that you can focus searches or access your recent searches. If you decide to sign-up, get the FAQ which will explain these options more fully.

The Internet Sleuth

This is a very useful tool, but not as inclusive as you might imagine. Its concept is somewhat different from the tools considered here. It indexes a large number of databases, and provides a front end from which they may be searched. Therefore, in the opening search box it is best to put as broad a single term as possible, and then from the resulting search window(s) be more specific. For example, if I were searching for the lyrics to that timeless classic by Sonny Bono called 'I Got You Babe,' I would search initially on "music." This search would result in a list of 29 searchable databases, such as the CD-ROM Database, Music Colleges, Chicago Concerts, Smithsonian Folkways, and so on. Among the databases (for each of which the Sleuth presents you with a search window) there is one called Lyrics Server. In the search window titled Artist or Title the terms "sonny and cher" result in a list of two songs: 'I Got You Babe', and 'The Beat Goes On'. (Where are all the other great hits, one wonders). Clicking on the appropriate title yields the actual lyrics--reading which, in the light of subsequent history, is somewhat amusing.

Where the database being searched allows for booleans or wildcards, the Sleuth gives you search hints next to the appropriate search window. Even the Yahoo index can be searched from within the Sleuth.

Magellan

Magellan is not actually a search engine, but rather an on-line guide to the Internet that contains a directory of rated and reviewed sites, along with an index to lots of unreviewed sites. It is like Yahoo, only less inclusive with a more thorough rating system. (One to four stars, rather than Yahoo's shades to indicate a cool site). Magellan's strength is its system of reviews. It is not a good starting place to do a search, but is rather more useful when looking for sites which are tried and true. The emphasis at Magellan is on pop sites (UFOs are one of the main categories on the front page), but if that is what you are looking for the site is great. The only drawback is the inevitable advertising.

Summary of Search Engine Features

The following table summarizes some of the common features of the search engines discussed above. Boldfaced elements mean that, in my opinion, this search engine makes the best implementation of this feature. The Internet Sleuth and Magellan are not included, since their features are so different from the others here considered. The names at the head of the columns are hot.

Internet Search Engines

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Category	AltaVista	Excite	WebCrawler	Lycos	OpenText	InfoSeek	Yahoo!	NightN
Case Sensitive?	Y	N	N	N	N	Y	N	N
Considers Phrases?	Y	N	Y	N	Y	Y	N	Y
Required Term Operator	+	+	N	N	N	+	N	N
Prohibited Term Operator	-	-	N	N	N	-	N	N
Wildcard Expander	*	N	N	\$	N	N	N	N
Limiting Character	N	N	N	.	N	N	N	N
Results Ranking?	Y	Y	Y	Y	Y	Y	N	N
Controllable Results Ranking?	Y	N	N	Y	N	N	N	N
Booleans Allowed?	Y	Y	Y	N	Y	N	N	Y
Proximity Operators Allowed?	Y(10)	N	Y(range)	N	Y(80)	Y(100)	N	N
Subject (Directory) Searching?	N	Y	Y	Y	N	Y	Y	N
Refine Based On First Search?	N	Y	N	N	Y	N	N	N
Controllable Display Format?	Y	N	Y	Y	N	N	N	N

General Search Tips

What is the best search tool? It depends on your premises and why you need the information. If you are just browsing, start at Yahoo, or use the directory services of Webcrawler (GNN) or one of the other subject catalogs. If you are looking for best of web--and your interests are "pop."--use Magellan. If you need a specialized database, try Internet Sleuth first. If you are doing "serious" research, start with AltaVista, but be prepared to use the other good search engines too, and follow these general rules of thumb:

- Enter as many precise search terms or phrases (if allowed) as possible in order to limit the search. The biggest problem is noise. That is, irrelevant or inconsequential sites among the jewels. Use of the required/prohibited term operator (prepending +/-) helps in reducing noise: **+radio* -radiology**
- Enter singular terms. Most search engines will find the substring and return rivers for river. To generalize a subject, use wildcards where allowed (**surg*** for surgery, surgeries, surgical).
- Do not use common, generic search terms, or if you must, include them in a phrase with more specific terms. The term **book** would be far too generic unless it were part of a phrase like "**book binding**."
- Enter multiple spellings where appropriate: **Khaddafi Quadafy Kaddafi Qadaffi...** If you know

Beyond Surfing: Tools and Techniques for Searching the Web by Kathleen Webster (real name?) and Kathryn Paul.

World Wide Web Searching Tools - an evaluation by Ian R. Winship.

The Webmaster's Guide to Search Engines and Directories by Danny Sullivan.

Yahoo's index to searching the web.

Navigation

Return to the Shakespeare Search Page.

Return to Mr. William Shakespeare and the Internet.

Go to the Palomar College Library Main Page.

Go to the Palomar College Home Page.

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More about WEB SEARCH ENGINES & Search techniques

In addition to searching the World Wide Web through subject directories you can use databases called search engines, which are like indexes to the Web. After going to a search engine, click in the text box and enter a keyword or phrase. A few popular search tools differing in speed, breadth, options and style are listed below. Search engines also differ on how they rank sites by relevancy; therefore, the site you want may not be at the top of the list. For obscure searches, you might try several search tools.

Lycos

Lycos may have the most comprehensive catalogue of the Web. It allows flexible searches on keywords weighted by both occurrence of the keyword and popularity of the site. Lycos also provides a subject directory of the 250 most popular sites, daily news and Web reviews from Point Review. Click the *Search Options* button for search tips in Lycos.

Open Text

Open Text is a fast, comprehensive, user-friendly and flexible search engine that offers simple and powerful searches. Results include an outline of the page and an option to view that context of the keywords found or refine your search. Click the *Options* button or *Power Search* at the top of the page for additional search capabilities.

Alta Vista

Alta Vista is a comprehensive search engine with several useful search capabilities, including simple, advanced, link, and URL queries. Results are ordered by number of search terms found, but you may have to wade through many results to find a desired page. Results include title, link, and first twenty words. Click *Tips* at the bottom of each page for search tips.

WebCrawler

WebCrawler is a smaller database, with 150,000 documents compared to millions in the comprehensive databases. However, WebCrawler is easy and intuitive to use and is often recommended for beginners. Results are ranked by relevance and include only the title and link. Click *Help* on the home page for search tips.

Net Search

This site from Netscape Corporation offers InfoSeek, a popular but busy search engine, as well as links to many additional search resources to explore. The site can also be reached by clicking the *Net Search* button in the Netscape tool bar above any page.

Search.com

Finally, if you feel inundated with the plethora of search options available, try visiting Search.com from c\net inc. Find more than 2000 Internet search engines that find all kinds of information. This site also features a front page you can customize.

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Help for Advanced Queries Only. Not for Simple Queries!

(To reach the Help page for Simple Queries, click on Simple Query, then Help.)

Advanced Queries use operators and expression syntax to construct queries. The rules for defining words and phrases, capitalization and wildcards are, however, the same as for Simple Queries.

- ☐ You **must** use the binary operators **AND**, **OR**, **NEAR**, and the unary operator **NOT** to combine words and phrases. The operators can also be written in lower-case: **and**, **or**, **not**, **near**. Alternatively, you can use the symbols **&** for **AND**, **|** for **OR**, **!** for **NOT**, and **~** for **NEAR**.
- ☐ If you need to use any of these words as search words in a query, you must place them in quotes.
- ☐ You are allowed to use parentheses to group search expressions; in fact it's recommended as less confusing.

Using the binary operators **AND**, **OR**, and **NEAR**, and the unary operator **NOT**

kayak **AND** "San Juan Islands"

The operator **AND** ensures that **both** are present in the resulting documents. The operator **AND** binds less tightly than juxtaposition.

"Digital Equipment Corporation" **OR** DEC

The operator **OR** ensures that **at least one** is present in the resulting documents. The operator **OR** binds less tightly than the operator **AND**.

Louis **NEAR** Monier

The operator **NEAR** ensures that both are **within ten words of each other** in the resulting documents. The operator **NEAR** binds less tightly than the operator **NOT** and associates to the left. This query matches *Louis Monier*, *Louis M. Monier* and *Monier, Louis*.

vegetable **AND NOT** "brussel sprouts"

The operator **NOT** is used to exclude words or phrases from a query. The operator **NOT** binds less tightly than the operator **OR**. This query is equivalent to *vegetable and (not "brussel sprouts")*. Do **not** use *vegetable NOT "brussel sprouts"*; this query is syntactically illegal.

- ☐ [Examples showing the importance of parentheses](#)
- ☐ [How searches work: Advanced Queries](#)
- ☐ [Constraining searches in Web pages](#)
- ☐ [Constraining searches in Usenet news](#)
- ☐ [The META tag: Controlling how your page is indexed](#)
- ☐ [Stealing AltaVista and other useful tips](#)
- ☐ [Frequently Asked Questions about AltaVista and the Web](#)
- ☐ [More about words, phrases, capitalization, accents and the *-notation](#)

Examples showing the importance of parentheses

gold or silver and platinum

gold or (silver and platinum)

(gold or silver) and platinum

The first two queries are equivalent. They return documents containing both *silver* and *platinum*, together with documents containing *gold*.

If you want the search to find documents containing *platinum* and, in addition, in the same document, either *gold* or *silver*, you must use the third query pattern.

not gold and silver

(not gold) and silver

not (gold and silver)

The first two queries are equivalent. They return documents containing *silver* but not *gold*.

If you want the search to eliminate documents that contain both *gold* and *silver*, you must use the third query pattern.

gold near silver and platinum

(gold near silver) and platinum

(gold near silver) and (gold near platinum)

The first two queries are equivalent. They return documents containing *gold* located close to *silver*, and in addition, in the same document, the word *platinum*.

If you want the search to find documents containing *gold* located close to *silver* and, in addition, in the same document, *gold* close to *platinum*, you must use the third query pattern.

not gold near silver

not (gold near silver)

silver and not (gold near silver)

The first two queries are equivalent. They eliminate from the search all documents containing *silver* located close to *gold*.

If you want the search to find documents containing *silver* but want to eliminate those that contain *gold* located close to *silver*, you must use the third query pattern.

gold near silver or platinum

(gold near silver) or platinum

The two queries above are equivalent. They find documents containing *gold* located close to *silver*, together with documents containing *platinum*.

gold near (silver or platinum)

(gold near silver) or (gold near platinum)

The two queries above are equivalent. They find documents containing *gold* located close to *silver*, together with documents containing *gold* located close to *platinum*.

How searches work: Advanced Queries

To simplify the description that follows, we refer to the type-in field labelled Selection Criteria as the *search field*, and that labelled Results Ranking Criteria as the *ranking field*.




Search and Display the Results

Selection Criteria: Use only Advanced Search Syntax with AND, OR, NOT and NEAR.

Results Ranking Criteria: documents containing these words will be listed first.
If left blank, the matching documents will not be sorted.

Start date: End date: e.g. 21/Mar/96

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How AltaVista performs queries

Simple Queries and Advanced Queries are different interfaces to the same search engine. This being true, you might be surprised that, under certain conditions, apparently identical queries can produce slightly different results, depending on whether you submit them as Simple or Advanced Queries.

Compare, for example, a one-word Simple Query, say *plato*, with the same word submitted as an Advanced Query, but with **no ranking specified**. More specifically, this latter query has *plato* in the search field and nothing in the ranking field. Each of the two queries produces "about 20000" documents, but the ranking is different in each case.

The explanation for the difference in ranking is rather complex, but briefly, AltaVista implements Simple Queries as Advanced Queries. More specifically, a Simple Query gets transformed into a boolean expression together with a set of words to rank the results.

In the example above, AltaVista will implement the Simple Query consisting of the one word, *plato* as an Advanced Query with nothing in the search field, but *plato* in the ranking field. Recall that in this example, the Advanced Query had *plato* in the search field and nothing in the ranking field; in other words, the two queries were actually not identical, and hence the different rankings.

If you submit a different Advanced Query, this time with *plato* in both the search field and the ranking field, the rankings of the documents matched will also be identical to those produced by the Simple Query for *plato*.

To sum up, all three of the following queries produce the same matches and in the same ranking order.

Type of Query	fields	Query word
Simple	search only	plato
Advanced	search ranking	--- plato
Advanced	search ranking	plato plato

The following query will give you the same matches as for the queries above, but in no particular ranking order.

Type of Query	fields	Query word
Advanced	search ranking	plato ----

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How AltaVista ranks Advanced Queries

Use the type-in field labelled *Results Ranking Criteria* to enter words or phrases that will determine the ranking of the search results. Recall from the previous section that ranking an

determine the ranking of the search results. Recall from the previous section that ranking an Advanced Query is equivalent to performing a Simple Query: the same scoring algorithm is used in both cases. Documents with a high score will appear at the head of the list. High scores are assigned if the selected ranking word appears in the first few words of the document (say, in the title of a Web page or in a header), or if the document contains more than one instance of the ranking word.

Here's an example query, starting with no ranking specified.

Search field	(gold near silver) and platinum
Ranking field	
Result	2000 documents found and listed in no particular order.

The 2000 documents found will contain the words *gold* located close to *silver* and in addition in the same document, the word *platinum*. If you now choose *platinum* to rank the search results, the query will produce the same 2000 documents, as you might expect, but ranked so that those with the highest scores for *platinum* are placed at the head of the resulting list.

Search field	(gold near silver) and platinum
Ranking field	platinum
Result	2000 documents found, ranked so that those with high scores for <i>platinum</i> are listed first.

You might want to proceed further. On the assumption that documents containing matches for these metals also contain references to other metals, you might want to check for occurrences of another. But notice what happens now to the search results.

Search field	(gold near silver) and platinum
Ranking field	palladium
Result	200 documents found

In this case, the Advanced Query has not returned the 2000 documents that resulted from this search and reranked them so that any with matches for *palladium* are listed first. A second level of filtering has been applied to the search result; 1800 documents that do not contain matches for *palladium* have been discarded. In other words, when the ranking field is not empty, documents that contain none of the words in the ranking field are discarded.

Constraining searches

It is possible to restrict searches to certain portions of documents by using the following syntax. The keyword (link, title, image,...) should be in lower-case, and immediately followed by a colon.

Constraining searches in Web pages:

anchor:click-here

Matches pages with the phrase *click here* in the text of a hyperlink.

applet:NervousText

Matches pages containing the name of the Java applet class found in an applet tag; in this case, *NervousText*.

*NervousText.***host:digital.com**Matches pages with the phrase *digital.com* in the host name of the Web server.**image:comet.jpg**Matches pages with *comet.jpg* in an image tag.**link:thomas.gov**Matches pages that contain at least one link to a page with *thomas.gov* in its URL.**text:algol68**Matches pages that contain the word *algol68* in any part of the visible text of a page. (ie, the word is not in a link or an image, for example.)**title:"The Wall Street Journal"**Matches pages with the phrase *The Wall Street Journal* in the title.**url:home.html**Matches pages with the words *home* and *html* together in the page's URL. Equivalent to *url:"home.html"*.**Constraining searches in Usenet news articles:****from:napoleon@elba.com**Matches news articles with the words *napoleon@elba.com* in the **From:** field.**subject:"for sale"**Matches news articles with the phrase *for sale* in the **Subject:** field.You can combine this with a word or phrase. For example, *subject:"for sale" "victorian chamber pots"*.**newsgroups:rec.humor**Matches news articles posted (or crossposted) in news groups with *rec.humor* in the name.**summary:invest***Matches news articles with the word *invest*, *investment*, *investiture*, etc., in the summary.**keywords:NASA**Matches news articles with the word *NASA* in all caps in the keyword list.**More about Words, Phrases, Capitalization, Accents, and the *-Notation****Words**

AltaVista treats every page on the Web and every article of Usenet news as a sequence of words. A *word* in this context means any string of letters and digits delimited either by punctuation and other non-alphabetic characters (for example, &, %, \$, /, #, _, ~), or by *white space* (spaces, tabs, line ends, start of document, end of document). To be a word, a string of alphanumerics does not have to be spelled correctly or be found in any dictionary. All that is required is that someone typed it as a single word in a Web page or Usenet news article. Thus, the following are words if they appear delimited in a document: *HAL5000*, *Gorbachevnik*, *602e21*, *www*, *http*, *EasierSaidThanDone*, etc. The following are all considered to be two words because the internal punctuation separates them: *don't*, *digital.com*, *x-y*, *AT&T*, *3.14159*, *U.S.*, *All'sFairInLoveAndWar*.

Only the words in a document are significant to AltaVista. AltaVista does not index punctuation or white space, so you can use AltaVista to look only for words and phrases, not punctuation.

Phrases

A phrase is a string of words that are contiguous in a document, although they may be separated by any amount of white space or punctuation. They do not have to be grammatical in any human language--they just have to occur in a document as a contiguous sequence of words. Some examples:

- ☐ President of the U.S.A. (*6-word phrase*)
- ☐ <http://www.election.digital.com> (*5-word phrase*)

Since the punctuation and white space are insignificant to AltaVista (except that they delimit words), the phrases above are indistinguishable from the following variants:

- ☐ President of the U S A
- ☐ [http www election digital com](http://www.election.digital.com)

There are two conventions for typing a phrase in a query. The best way, leading to the least ambiguity, is to type the phrase as "a sequence of words separated by spaces and surrounded by double quotes".

However, as an alternative, you may type the words of the phrase with punctuation (and no white space) between each pair of words. For example, these are all equivalent as queries:

- ☐ "President of the U S A"
- ☐ President-of-the-U-S-A
- ☐ President/of/the/U/S/A
- ☐ President.of.the.U-S-A

The first is the one we generally recommend. Be aware that the punctuation characters & | ! and ~ have meaning in Advanced queries, and * indicates the *-notation used in both Simple and Advanced queries.

Capitalization

Capital letters are considered distinct from lower-case letters. When a word is found in a Web page or a news article, its case is preserved when it is stored in the index.

When you enter a word in a query, therefore, it is always safe, and generally recommended, to type it all in lower-case, because lower-case letters indicate a case-insensitive match. If you type any capital letters, you force an exact case match on the entire word.

Thus, the word *turkey* in a query will match any of *turkey*, *Turkey*, *tUrKeY* or *TURKEY* occurring in a document. But the capitalized word *Turkey* in a query will match only *Turkey* in the document, and not any of the other capitalization variants.

Accents

Accents are treated in the same way as capitalization. An accented word used in a query forces an exact match on the entire word. For example, if you use *éléphant* in a query, you will match only the French spelling for the pachyderm. However, if you do not care to enter accents in the search window (something which is browser, platform, and keyboard-dependent), you can always safely omit the accents, thereby matching both the French and English spellings.

The *-notation

To search for occurrences of any of a group of words with a similar pattern. AltaVista provides the *-notation. For example, you might want to search for matches of *sing*, *singer*, *singers*, *singing*. In this case, place the *-notation at the end of the word whose inflections you want to include in the search: *sing**. But, a word of warning. AltaVista will also match words lexically unrelated to your query word. So the query *sing** will also find matches for *singe*, *single*, *singular*, and for foreign words such as French *singulier*.

The *-notation cannot be used without restriction. To make such queries computationally feasible, AltaVista requires that the * be used only after at least three letters. The *-notation will match from zero up to five additional letters in lower-case only. Capital letters and digits will not therefore be matched.

The *-notation can sometimes be useful for finding variant spellings: for example, *canalo** will find matches for *canaloup*, *canaloupe*, *canalope*, and their plurals. But take care how you construct the query word. For example, if you want to find matches for both *color* and *colour*, a query of the form *col*r* is not the most efficient. This query will also find matches for *collector* and atomic *collider*. In this case, it is more efficient to submit the query *colo*r*, which will find matches for both *color* and *colour*.

Finally, if your search using the *-notation finds too many matches, AltaVista will ignore the query. The query *ine**, for example, produces the result,

Ignored inte*: 4292323

No documents match this query

The META tag: Controlling how your Web page is indexed by AltaVista

In the absence of any other information, AltaVista will index all words in your document (except for comments), and will use the first few words of the document as a short abstract.

It is however possible for you to control how your page is indexed by using the META tag to specify both additional keywords to index, and a short description. Let's suppose your page contains:

```
<META name="description"
content="We specialize in grooming pink poodles.">
<META name="keywords" content="pet grooming, Palo Alto, dog">
```

AltaVista will then do two things:

- It will index both fields as words, so a search on either *poodles* or *dog* will match.
- It will return the description with the URL. In other words, instead of showing the first couple of lines of the page, a match will look like the following:

Pink Poodles Inc

We specialize in grooming pink poodles.

<http://pink.poodle.org> - size 3k - 29 Feb 96

AltaVista will index the description and keywords up to a limit of 1,024 characters.

Frequently Asked Questions about AltaVista and the Web

I know a page on the Web that matches my query, but AltaVista did not find it. Why not?

There are many reasons why AltaVista might not find a page that is in fact on the Web.

- ❑ The page you are looking for is new. AltaVista is constantly searching the Web for new pages to add to its index, but it is likely that it will not find a brand new page (or new version of an old page) for a few days.
- ❑ The page is behind a gateway or firewall. Some Web pages are on corporate servers that are not publicly accessible, and AltaVista does not attempt to access them. Likewise, any pages that require additional protocol beyond following a hyperlink (e.g. that require filling out a form, or registering, or providing a password, etc.) are not indexed.
- ❑ Some servers specifically request that they not be visited by automated systems (called *robots* in the parlance), and AltaVista respects that request.
- ❑ The page may be unreachable by a chain of hyperlinks from the main body of the Web. AltaVista starts with a few thousand known Web documents, and follows chains of hyperlinks to find all of the others. Some documents, however, while technically on the Web (i.e. available from some Web server and retrievable through the right URL), have no hyperlinks pointing to them from the main body of the Web. A set of Web documents that have hyperlinks to each other and hyperlinks outward, but that have no hyperlinks into them from the rest of the Web, cannot be found automatically by AltaVista.
- ❑ Sometimes AltaVista knows of the existence of a page because it has found a hyperlink to it, but every time it tries to retrieve the page to index it, the connection times out. This might indicate heavy congestion at the server or the server not being online at that moment.

AltaVista found some documents that do not match my query. Why?

AltaVista is constantly walking the Web, and indexes the contents of a document as of the day it finds it. It is possible that the owner of the document has made some modifications since AltaVista retrieved and indexed it. Even though the original document matched the query, the new version might not. Eventually AltaVista will get around to retrieving the page again and indexing it on the basis of its new content.

In our experience, however, when AltaVista finds a document that does not appear to match the query, the most likely explanation is that it does indeed match, but in some way that is not very obvious. For example:

- ❑ Words and phrases in a simple query that are not preceded by a + or - sign need not all be present in a document to be considered a match; only one is required. Otherwise they only affect the order in which those documents are presented to you.
- ❑ Punctuation in a query and in a document are both generally treated as white space for matching purposes; also, lower case letters in the query are generally considered as matching the corresponding upper case letters as well. Thus, the simple query "John Smith", intended to look for references to this person, will match a document that by chance contains the phrase "John. Smith", i.e. a phrase with *John* at the end of one sentence, and *Smith* at the beginning of the next. Quite

unlikely:

- ❑ The words matched by the query may be in hyperlinks or other textual parts of the Web page that are indexed by AltaVista, but that are not visible when the page is displayed by your browser. Even if your browser comes with a text search command, the search may not find the words that AltaVista does, because it may skip hyperlink fields, and other fields that the browser does not display.
- ❑ The words matched by the query may be in the URL of the page it found. For example, all pages with the words *digital.com* or *home.html* in their URLs are considered to contain the words *digital* and *com* (or *home* and *html*) respectively. If you want to avoid this, then search using the prefix *text:* before the words or phrases you want to be sure are not matched by the text rather than the URL of a page.


AltaVista found a page I wanted to look at, but when I attempted to retrieve it, I got an error. Why?

This can occur when the status of the page, or the server it is on, has changed since AltaVista last retrieved and indexed it.

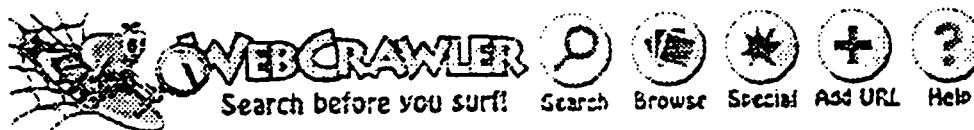
- ❑ The page may have been renamed or removed by the owner.
- ❑ The server may be down at the moment.
- ❑ Access restrictions may have been introduced at the server since AltaVista retrieved the page.
- ❑ The server may be so overloaded that attempts to connect to it time out.

It is also possible that your own internetworking infrastructure, (routing tables, DNS service, or security policies) prevent you from making a connection to the server. The particular error message you get will give you more information.

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Help: Basics of Searching



WebCrawler understands plain English and is programmed with novice users in mind so you don't need to be a master of Boolean search syntax to unleash its power. Masters of Boolean syntax can skip to our section on [Advanced Searching](#).

To use WebCrawler's Search feature, you just need to be able to describe what you're looking for with a series of words or a phrase. Type those words into the search box, click on the "Search" button, and WebCrawler will find resources on the Web that match your search.

Here's an example of a WebCrawler search. Click on the "search" button to try this query, then click on the "Back" button in your browser to return to this page.

Search the web and show for results

Example: diving swimming NOT (pool OR "hot tub") [Search tips](#)

How do you want your results?

WebCrawler lets you customize the way your search results are displayed using the two choice boxes above the search box.

Titles or Summaries - Using the first choice box, you can choose to view results in either a short or detailed format. The short format gives you a list of **titles** of Web resources that match your query. The **detailed** format provides titles plus summaries, URLs, numerical relevancy scores, and the option of viewing similar pages for each result returned.

Number of Results per page - Using the second choice box, you can choose to view search results 10, 25 or 100 at a time.

Try changing the default settings above the search box in the previous search example and click on search to see how the new settings affect your results.

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Help: Search Examples



Here are some examples of WebCrawler searches that produce good results and why they work:

adventure travel trekking Nepal Himalayas

Looking for adventure in the Far East? This search will give you the information you need. This is a good search because it's specific - both in the type of travel and the destination. Including synonyms for adventure travel (trekking) and Nepal (Himalayas) gives WebCrawler more related terms to match documents against so you cast a wider net and don't miss out on relevant pages.

employment resources jobs resumes career

If you're trying to find job listings on the internet, this search will give you the information you need. This search relies on a series of synonyms to capture the various employment related information that's available.

carpal tunnel syndrome "repetitive stress" "cumulative trauma"

If you're trying to find information about Carpal Tunnel Syndrome, this search will produce the information you're looking for. As with the previous examples, including synonyms for what you're looking for means that you won't miss out on relevant results that are described using different terminology. The quotation marks around the phrase repetitive stress filters out resources about general stress-related disorders and treatments.

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Help: Improving Your Results



If at first you don't succeed, WebCrawler provides a convenient search box at the top of each results page containing the words you typed so you can try again.

Here are some strategies for improving your results:

Focusing your Search

If you got too many results or the results weren't as specific as you want, here are some strategies for focusing your search results.

Put quotation marks around phrases or words that must appear next to each other in your results.

Example: Putting quotes around the words "space shuttle" filters out pages about outer space and those about various spaces closer to home, returning only pages that pertain to the space shuttle.

Eliminate or replace generic or commonly used words with more unique terms or add words that make your original description more specific.

Example: The word **program** is a term that adds noise - there are lots of programs out there, television, software, etc. Removing **program** from your search words will produce more focused results.

Learn from your results. Often by scanning the results of your original search, you'll discover one that's close to what you want. The title or content of that page can give you ideas for terms that better describe what you're looking for.

Broadening your Search

If you got too few results or didn't find what you were looking for, here are some strategies for broadening your search results.

Try adding synonyms for your original words.

Example: If your search on **bed and breakfasts in Northern California** produced too few relevant resources, try **bed and breakfasts inns "small hotels" in Northern California**.

Check your spelling. A single misspelled or mistyped word can turn an otherwise well-defined search into a dud.

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Help: Advanced Searching



Don't let our animated User Interface fool you. Underneath our user friendly exterior lies a powerful search and retrieval technology that supports a full range of Boolean search operators to keep expert searchers happy. You can print out this chart for quick reference. (Note: we've capitalized the search operators in this chart, but it's not necessary to do so when you type a search.)

Operator	Example	Finds
AND	gardening AND vegetables	pages that include both of the words - e.g. pages containing both gardening and vegetables.
OR	whales OR cetaceans	pages that include either of the words or both - e.g. pages containing whales OR those containing cetaceans OR those containing both whales and cetaceans. (Note: WebCrawler performs OR searching by default so it is not necessary to explicitly specify an OR search.)
NOT	science NOT fiction	pages that include the first word but not the second - e.g. pages containing science but NOT fiction.
NEAR	arthritis NEAR/25 nutrition	pages in which both words appear within 25 words of each other in either direction - e.g. pages containing the words arthritis and nutrition within 25 words of one another. If you do not specify a range, as in the example, budget NEAR deficit, the search will return pages in which the two words are next to each other (in either order).
ADJ	global ADJ warming	pages in which the two words appear next to each other in that order - e.g. pages containing global warming.
"..."	"all you can eat"	pages containing the phrase - e.g. only those documents containing the phrase "all you can eat". For two word phrases such as animal magnetism, "animal magnetism" and animal ADJ magnetism have the same effect.
(...)	Homer NOT (Simpson OR Alaska)	pages containing the first word NOT either of the other two - e.g. pages containing Homer but NOT Homer Simpson or Homer Alaska. Parentheses simplify the creation of complex queries and can be used in combination with any of the search operators on this list.



► Search

► Interact

Search for: within
 within
 within

(Enter a word or phrase in each field.) [More lines](#)



Search: [Simple Search](#) | [Power Search](#) | [Japanese Index](#)

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-
- ☐ [Using the Search Form](#)
 - ☐ [Search Options on the Search Form](#)
 - ☐ [Display Options on the Search Form](#)
-

Using the Search Form

Often you don't need to use the search form at all - just enter your query into the text entry box on the home or results pages, and hit the "Enter" key. If you need to do any of the following, the search form is a tool you can use to "fine-tune" your search:

- ☐ Make your search more narrow or wider
- ☐ Have the search match ALL words in your query rather than the default ANY words
- ☐ Search for a number of terms which is DIFFERENT from the number you entered (e.g., to search for several possible spellings of a word AND some other word)

The search form gives you two ways to control your search (Search Options) , and two ways to control the display (Display Options) of your search results. Notice that to the right of "Search Options" on the form below there are two pull-down menus, and to the right of "Display Options" there are also two pull-down menus. Try clicking your mouse on the down-arrow in these pull-downs and look at the selections available in each.

Query:

Search Options:

Display Options:

Search Options on the Search Form

Using the Search Options to set terms to match (Boolean)

By default Lycos will find all documents matching any word you type in your query (except for certain words like "a" and "the" which are generally not meaningful in a search). If you type "jeep cherokee" as your query, Lycos will find all documents containing either "jeep" OR "cherokee". This is the "match any term (OR)" Search Option, and is what you get when you type a query into the form on the home page, or if you select the "match any term (OR)" Search Option on the search form.

Sometimes you want to find only documents which match ALL the words in your query. This is the "match all terms (AND)" Search Option. Try it on the form below, and see the difference in what Lycos returns for "jeep cherokee" when you use the "OR" option and when you use the "AND" option.

Query:

Search Options:

Display Options:

You might be wondering why you need "match 2 terms", "match 3 terms", etc. These are to give you more flexibility in your search.

Suppose you wanted to find references to Sarajevo and Yugoslavia. But you're not sure whether Sarajevo is spelled "Sarajevo" or "Sarayevo". So you enter your query "Sarajevo Sarayevo Yugoslavia". To get the best results, you can use the Search Options.

You can't use "match all terms (AND)" because that would give you only documents which contain both spellings of "Sarajevo" AND Yugoslavia, and there probably aren't any of those. You could use "match any terms (OR)" because that would return all documents that contain any of these three terms, but you would also get lots of documents you don't want in the list.

Here's what you do:

Enter "Sarajevo Sarayevo Yugoslavia" as your query, and choose "match 2 terms". This will match at least two terms in each document. Since it's quite unlikely Sarajevo will be spelled two different ways in the same document, the results returned will have references to BOTH one of the two spellings of Sarajevo AND Yugoslavia.

Using the Search Options to set the selectivity of the search

You can change the Search Options to adjust the selectivity of the Lycos search engine. When set to "loose match" you will get more documents, but they will tend to be less relevant to the query you made. Often, particularly when you are beginning a search and wish to cast the widest possible net, this is exactly what you want.

If you want the Lycos search engine to be more selective, change the Search Option from "loose match" to "strict match". Lycos will return only documents which have a very high relevance to your query. If you are on a slow dialup connection, setting the selectivity to "strong match" can save you money by reducing the number of irrelevant hits downloaded to you.

You can try out the effect of various selectivity settings on the LIVE form below. Try some searches with various selectivity settings to get a feeling for how it affects your results.

Query:

Search Options:

Display Options:

Display Options on the Search Form

Setting the results page size Display Option

Lycos always gives you all the results or "hits" matching your query, even if there are hundreds or thousands. But if the number of hits is large, we do not display them all at once, so you don't need to wait a long time for the whole page to come to you. By default, we display 10 hits on each results page. Once you've looked at those 10, you click on the "Next 10 hits" link at the bottom of the page to get the next 10 hits, and so on until all the hits are displayed.

To change the default from 10 displayed on each page, use the search form and choose another value from 10-40 in the pulldown menu - it's the first pulldown to the right of "Display Options". Try changing it on the live form below:

Query:
Search Options:
Display Options:

Setting the results detail Display Option

You can also control the amount of information Lycos displays about each result. There are three levels of detail - standard (the default), detailed (all information displayed), and summary (the minimum amount of information is displayed). For more information on the different results formats, please read the [results help file](#).

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NETGLOS - English

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

A

alias

A nickname that refers to a person or group of people on a network. For example, the mailing-list named NETGLOS is an *alias* for all the e-mail addresses on the NETGLOS subscribers' list at coopnet.org. Whenever an e-mail message is sent to netglos@coopnet.org, it will automatically be forwarded to all the people on the mailing-list. Similarly, the address "webmaster@widgets.com" usually found on WWW sites, is an *alias* for the person responsible for maintaining that site. All e-mail sent to this address will be routed accordingly.

[deutsch ellinika | español français hrvatski norsk zhongwen]

anchor

In HTML, *anchors* mark the start and end of hypertext links.

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Anonymous FTP

See FTP

[deutsch ellinika | español français | hrvatski | norsk zhongwen]

archive

A collection of files stored on a computer network - often retrievable by FTP

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authentication

A security measure for checking a network user's identity.

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B

backbone

The Internet's high speed data highways that serve as major access points to which other networks connect.

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bandwidth

The amount of data you can send through a network connection. *Bandwidth* is usually measured in bits-per-second (bps).

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bookmark

A feature of most Web browsers. You can save frequently accessed links in a *bookmark* file, rather than have to look up the URL each time.

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browser

Another name for a client program that allows users to access documents on the WWW. Browsers can be both text-based or graphic.

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bullet

In HTML, a *bullet* is a large dot used to separate listed items on a WWW page

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BBS

(Bulletin Board System) -- A dial-up computerized meeting and announcement system for carrying on discussions, uploading and downloading files, and generally obtaining online information and services.

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C

checkbox

In HTML, a way to allow the user to interact with the material on a web page by clicking on a box or other input element.

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clickable image map

A map or graphic where certain parts of it are associated with different hyperlinks. For example, users can click on cities on a map of a country and bring up linked pictures and other information about each place. For example, Honolulu Community College has developed an interactive campus map that lets you get information about each building, its hours of services, etc.

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client

A remote computer connected to a host or server computer. Also refers to the software that makes this connection possible.

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cross-post

To post a message to several newsgroups simultaneously - an action usually frowned on in Internet culture

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OREGON HISTORICAL SOCIETY



Strategies Through 2005

1. Mission
2. Vision
3. Legacy to the Future
4. Situation
5. Key Strategies
6. Goals for 2005
7. Core Staffing

Board Draft

History gives us our sense of place, our sense of belonging to the cohesive force we call "society". Without understanding history, we cannot appreciate the roots of our connection to one another.

Mark O. Hatfield

The Oregon Historical Society's
MISSION

The Oregon Historical Society (OHS) encourages and inspires Oregonians to use their history to enrich their lives, preserve and better their communities, and to inform their decisions as citizens. OHS does so by collecting, preserving, exhibiting, publishing, and sharing statewide the material and documentary history of Oregon.

Incorporated as an independent, not-for-profit institution, the Oregon Historical Society holds its collections in perpetual trust for the people of Oregon. In encouraging and promoting the study and understanding of the history and cultures of the Oregon Country, the Oregon Historical Society collaborates with other organizations with similar aims.



The Oregon Historical Society's
VISION

A Vision to match our heritage...

The Oregon Historical Society encompasses Oregon--our rich history, a varied landscape, the diversity of fellow Oregonians. As we look to the next century and our responsibilities to the people of this state, the Society's vision stands equal to the ambition and the work that have made Oregon. Between now and 2005, the Oregon Historical Society will:

make the rich and vast collections of the finest historical repository in the Pacific Northwest immediately accessible to the people of Oregon and beyond.

remain the region's most interesting and enduring center for learning about the Oregon Country.

preserve the historical resources gathered by six generations of Oregonians, ensuring their security, maintenance, and accessibility for future generations.

serve as a statewide catalyst in building a knowledge and appreciation of history, while bridging the gaps of geography, economics, and ethnicity that separate Oregonians.

become a library/museum/education center whose collections, programs, and services play increasingly more relevant and significant roles in the lives of Oregonians and in the work of their businesses and government.

become a statewide "community center" recognized by Oregon communities, families, and individuals as *the* organization through which they develop their sense of place and time in Oregon.

be supported by the people of Oregon commensurate with the programs and services the Oregon Historical Society provides to them.

We invite you to share in the resources of the Oregon Historical Society's wonderful collections that tell the story of Oregon. Please join us in turning this vision for OHS into a reality for all Oregonians and their posterity.

Chet Orloff
Executive Director

In the old days, in blizzardy weather, we used to tie a string of lariats from house to barn so as to make it from shelter to responsibility and back again. With personal, family, and cultural chores to do, I think we had better rig up such a line between past and present.

Wallace Stegner

The Oregon Historical Society's
LEGACY TO THE FUTURE

Six generations ago, Oregonians threw a lariat from the past to the future by establishing the Oregon Historical Society. Since that time, thousands of Oregonians have worked together to save the priceless history of the people of Oregon from total oblivion.

It has not been easy. Historical treasures were pulled from the flames, rescued from floods, delivered from neglect. The young institution was often strapped for cash, but it persevered, acquiring Oregon's outstanding artifacts and manuscripts before they were lost forever. For seventy years, OHS lived out of packing boxes before finally moving into its own home in the Oregon History Center.

But for the Oregon Historical Society, working with allies from county to Congress, the beautiful country surrounding Crater Lake would have been logged off at the turn of the century, the site of Fort Vancouver would have become an aluminum factory, scores of places and buildings we cherish would have been bulldozed, and towering Beacon Rock on the Columbia River would have been reduced to gravel. But that was only the beginning.

OHS has helped identify and preserve more than 150 historic sites across Oregon and the old Oregon Territory, including much of the Oregon Trail, Fort Clatsop near Astoria (where explorers Lewis & Clark endured the winter rains of 1805-06), Champoege (where Oregonians first declared the principle of self-rule in 1843), and the Whitman Mission (where cultures clashed in 1847). For nearly 125 years, the Oregon Historical Society has saved the history of our people and helped securely preserve our state's great natural beauty. *In protecting our state's memory, the Historical Society is preserving the spirit of Oregon.*

The Oregon Historical Society also helps our state reap an ongoing, educationally based, economic bonanza. Tourism is now Oregon's second-largest industry and heritage tourism--in a word, *history*--ranks near the top of visitor interest. According to the Oregon Economic Development Department, tourists from out-of-state and overseas make visiting historic sites a priority. *The annual economic and educational return from these and other OHS-preserved sites today amounts to tens of millions of dollars.*

The educational and economic return from the Society's collections, amassed over more than a century, is also tremendous. Every year OHS collections and exhibits serve millions of people from every part of Oregon and the nation--families, teachers, students, government leaders, business managers, planners, attorneys, Realtors, scholars, artists, and authors. They use artifacts, maps, genealogical records, sound recordings and oral histories, rare books, works of art, periodicals and newspapers, photographs, films, and videos. At the same time, OHS exhibits travel the state, bringing Oregon's remarkable history to hundreds of thousands of schoolchildren and citizens.

To have a history is to be connected to the world. To know our history gives us the power to shape our world. More than 20,000 times a year, Oregon businesses, chambers of commerce, community organizations, and government agencies turn to OHS for information ranging from marketing programs to real estate transactions to corporate, urban, and rural histories. The Society's extensive Photographic Archive is a particularly important resource for publications, documentaries, and local histories.

The public's demand for history has grown dramatically. Since the 1930s, OHS has helped its fellow science, art, and history museums and local historical societies to collect, preserve, publish, and exhibit historical materials. More than 100 museums and historic sites in every part of the state regularly benefit from Historical Society collections and staff support. For example, three of Oregon's most exciting new regional museums, the High Desert Museum near Bend, the Oregon Trail Interpretive Center at Baker City, and the Museum at Warm Springs, have made extensive use of OHS resources. In addition to its Education and Research Services, the Historical Society administers the Oregon Geographic Names Board, the Lewis and Clark State Advisory Committee, the Oregon Folklife Program, and the Oregon Century Farms Program, all of them serving Oregon and all its citizens.

Generation after generation, the Oregon Historical Society has preserved the past for the future. The members, staff, volunteers, contributors, and board make this legacy real every day and will do so into the next century and beyond. A strong understanding of the Oregon Historical Society's current situation supports its planning for the challenges of the future.



...God speed in the work you are doing...you lay the foundations upon which the mighty historic master of the future must build.

Theodore Roosevelt to the Oregon Historical Society, 1900

The Oregon Historical Society's **SITUATION**

The Oregon Historical Society approaches the 125th anniversary of its founding and the 100th anniversary of its incorporation with a strong sense of its course into the next century.

OHS collections--held in trust for the people of Oregon--place it at the center of regional and local history...

However, many items are deteriorating, collections are incomplete, and electronic cataloging requires ongoing investment.

----- ❖ -----
OHS access--to its collections through its Museum, Library, and Press--fulfills its primary mission to share history with Oregonians...

However, the central permanent exhibits are in mid-replacement, electronic access is just beginning, and publications efforts face increasing demands.

----- ❖ -----
OHS programs--diverse, innovative, and growing--reach nearly every Oregonian and visitor.

However, they must continue to change to remain relevant to their many audiences and to meet the informational and education needs of a growing state.

----- ❖ -----
OHS facilities--the Oregon History Center and storage center--provide an excellent home to OHS activities and attractive experiences for visitors.

However, design shortcomings challenge visitors and obsolescence has impaired the physical plant.

OHS professional staff--unmatched in the state in training, knowledge, and experience--provide service and continuity to all OHS work.

However, financial uncertainty undermines retention and endangers morale.



OHS financial support--exceeding \$4 million per year--accomplishes current OHS goals.

However, increasing competition for contributions, continued decreases in the state's appropriation, and an unhealthy reliance on restricted funding for some core staff positions--all mandate growth in alternative sources of support such as earned income and endowment returns.



Understanding this situation, the board and staff of the Oregon Historical Society have embarked on a plan with key strategies and goals to take the institution to the year 2005.



*Dear Historical Society,
Thank you for letting us explore the History Center. I think you have done a good job of collecting artifacts. I hope you do well in the next few years because I think it is important for people to learn about the past.*

Ayan Said, student--Walker School, Ashland

The Oregon Historical Society's

KEY STRATEGIES

COLLECTIONS CARE

Preserve and expand OHS collections, emphasizing conservation of deteriorating items and filling out under-represented collections.

Provide electronic access through a single interface to collections catalogs and to specific items in the OHS collections, thus decreasing handling of fragile items while increasing access to them.

COLLECTIONS SHARING

Create new permanent exhibits reflecting modern museum theory and more fully integrating OHS collections into the visitor experience.

Share OHS collections statewide and beyond, through temporary and traveling exhibits, artifact loans, library services, and Internet access.

Publish both scholarly and popular history through journals, magazines, books, and electronic media.

PROGRAMS

Serve the entire state of Oregon and all of its cultures, as well as the state's "Heritage Tourism" industry, through active and valuable outreach programs in schools, communities, and institutions statewide.

Participate and play leadership roles in organizations serving the museum, library, and historical-agency fields in Oregon and nationally.

Anchor Portland's "cultural district" by operating a dynamic and attractive facility in the South Park Blocks, consistent with available development opportunities.

Sponsor and coordinate commemorative events to expand the public's knowledge and appreciation for historical milestones.

Place historic properties saved by OHS in the hands of local organizations across the state, and support their own fund-raising and interpretation efforts.

INSTITUTIONAL SUPPORT

Provide adequate physical plant to support all OHS facilities.

Attract and retain highly-qualified professional staff to core programs with adequate ongoing funding and positive internal relations.

Recruit and serve members, volunteers, and directors who share, support, and advance the OHS mission.

Create awareness and interest in all target audiences through consistent and appropriate marketing efforts.

Maintain a broadly diverse base of support--encompassing operating and capital contributions, the biennial state appropriation, earned income, and endowment returns.



William Faulkner

The Oregon Historical Society's
GOALS FOR 2005

COLLECTIONS CARE

1. Collections Acquisition — Collections form the core of the Society's mission. The end of the century (and of the millennium) will serve as an impetus to collections growth. OHS will capitalize on these turning points to bring focus to 20th century collections and to refine earlier collections. Because donations can fill only part of the need, by 2005 OHS will secure stable funding for an ongoing collections acquisition program.

2. Collections Preservation — Greater use of collections, increased collections size, aging facilities, and limited conservation funding put OHS collections at risk in the years ahead. By 2005 OHS will refine its collections preservation strategy to put even greater emphasis on long-term economical solutions including reduced collections handling coupled with the use of facsimiles, images of objects, and electronic records. OHS will explore all possible means to create an optimum physical environment for collections, including an in-depth analysis of storage capacity and the development of a thirty- to fifty-year plan.

3. Storage Center (Beaver House) — The long-term storage needs of the Society will be defined and a plan for accommodating collections growth will be generated. The completion of the OHS needs assessment by 1998 will allow the Society to move forward with overall planning for storage facilities, which may include building renovations, advanced storage equipment, stronger security mechanisms, and better environmental controls.

COLLECTIONS SHARING

4. Collections Automation & Access — OHS has opened a site on the World Wide Web, allowing Internet access for the first time. Internet access to textual information for virtually all OHS collections will be available by 2005. On-line images of collections will be available for a significant portion of the collections. Automation will also bring all the historical resources held by OHS together as one database. This integrated approach will encourage collections users to break through traditional historical research constraints and use all the collections resources available.

5. **Long-Term Exhibits** — The new OHS exhibition philosophy, “Breaking Traditions”, has since 1992 integrated all types of collections into exhibitions. By 2005 OHS will have completed a re-installation of the long-term exhibits at the Oregon History Center including Orientation Galleries, PARC (the Public Access Research Center), an object theater, and the Portland, Willamette Valley, and Oregon County exhibits.

6. **Other Exhibits** — Recognizing that many Oregonians and visitors will not travel to Portland, OHS will continue to create and promote traveling exhibits for institutions across the state as well as lend materials, photographs, and artifacts for other qualified institutions’ exhibits. Temporary exhibits at the Oregon History Center, either developed by OHS or visiting from other sites, will create a dynamic experience for the one-time or multiple-time visitor.

7. **Publishing** — OHS publishes history as a primary means of fulfilling its interpretive outreach mission. During the coming years continuity in the form of the *Oregon Historical Quarterly*, *Oregon History* magazine, the Eager Beaver book series, and traditional regional histories and biographies will be augmented by electronic publishing. By 2005 OHS publishing activities will focus on even greater integration with other OHS interpretive functions such as exhibitions, programs, and Internet outreach.

PROGRAMS

8. **Educational Services** — OHS provides every school in the state with a core history curriculum. By 2005 the OHS curriculum will be reshaped and clearly articulated to the state’s educational community. It will be tested against the demands of statewide educational reform and evolving national standards. The OHS role in distance learning will be expanded through its website and other avenues, and OHS outreach programming will take on a greater role.

9. **Technical Assistance** — OHS serves as a leading provider of technical assistance to local historical agencies, libraries, and museums, to businesses and organizations, to state and local governmental agencies, and to schools, colleges, and universities statewide. OHS efforts in support of the “Heritage Tourism” industry will expand along with state or industry funding for them. By 2005 the Field Services program will expand beyond its current single professional to encompass greater integration with the overall educational program.

10. **Reaching Constituents** — OHS helps Oregon’s communities, families, individuals, and visitors develop their sense of place and time in Oregon. It serves as a catalyst in bridging the gaps that separate Oregonians by geography, economics, and ethnicity. The community that makes up the state of Oregon, the local metropolitan area, and its visitors is changing and growing rapidly. Through 2005, OHS staff will allocate more resources to meeting the needs of its growing publics, in order to play an increasingly relevant and significant role their lives.

11. Commemorative Events — OHS will make history increasingly relevant to Oregonians during the upcoming anniversaries and years of historical celebration (the Oregon Territorial Sesquicentennial--1998, the 125th anniversary of OHS--1998, the bicentennial of the Lewis and Clark expedition--2003/2006, the centennial of the Lewis and Clark Exposition--2005, and the sesquicentennial observance of the Treaty of 1855 with Oregon's native peoples). OHS will initiate, sponsor, and coordinate a range of public activities and its interpretive programs will celebrate history and provide opportunities for deeper exploration.

12. Historic Properties — Since 1900 OHS has actively preserved historical sites throughout Oregon--often by outright acquisition. The sites of Fort Clatsop and Fort Vancouver, the Pete French Round Barn, and many others, have since been deeded to local or national groups to bring more resources to bear on their upkeep and interpretation. Properties now held by OHS will be entrusted to qualified local groups.

INSTITUTIONAL SUPPORT

13. History Center — OHS will complete a thorough analysis of its downtown facility and work towards redevelopment of the History Center block. The physical plant will be reshaped to emphasize better visitor services, increased interpretive potential, and maximum utilization of the prime downtown location for the benefit of Portland and revenue generation to support OHS.

14. Staffing — By 2005 OHS will have general fund (non-restricted) support in place for all core staff positions. A combination of general or specific endowments, increased public funding, and dedicated earned income sources will secure this support. Restricted funding will be used only for special projects and non-core staff. Staff compensation rates will rank in the top 25% of the relevant market levels.

15. Members & Volunteers — Current OHS membership ranks among the top five state historical societies'. Its corps of volunteers provide over 20,000 hours each year, equivalent to more than 10 full-time positions. By 2005 OHS will have increased member and volunteer levels by 50%, the surest test of institutional relevance.

16. Government Support — The State of Oregon has provided a biennial appropriation to OHS without interruption since 1898. Recent tax-reduction initiatives, however, have severely curtailed the traditional sources of state support, and the OHS appropriation was halved between 1991 and 1997. While no governmental appropriation can be perpetual, OHS will work to restore and secure sufficient public funding by 2005 to support the core activities of the Society and allow for continued statewide services. Continued funding from local governments--the City of Portland, Multnomah County, and Metro--will be maintained.

17. **Endowment** — OHS endowment will double by 2005. As with the Society's collections acquisitions, the endowment growth plan will capitalize on the approaching watershed events: OHS 125th anniversary, the close of the century and the millennium. Planned gifts and a potential capital campaign will draw the largest contributions to the endowment, which may well include individual funds dedicated to supporting specific OHS programs or positions.

18. **Core Funding** — Each year OHS projects a budget where the available revenues balance the expected expenditures. In every year, OHS will maintain a balanced budget and identify sufficient resources to support the goals in this plan, directing scarce resources first to the core work of the Society.



CORE STAFFING (72.7 FTE)

Operations & Programs (55.7 FTE)

Deputy Director, Administrative Assistant, Webmaster

Artifact Collections

Director, Curators of Collections (2), Collections Manager, Research Curator

Accessions

Registrar, Accessions Clerks (2)

Reference/Research Collections

Director, Assistant Reference/Serials Librarian, Catalog Manager, Cataloger (.5)

Image Collections

Director, Photo Archivist, Photo Cataloger, Moving Image Archivist, Chief Photographer, Photographer (.6), Imaging Technician/Photo Cataloger, Map Archivist, Public Services Photo Librarian (.5)

Manuscript and Archive Collections

Director, Assistant Archivist, Oral Historian, Public Services Manuscript Librarian

Visitor Services

Director, Desk Hosts (1.4), Receptionists (1.2), Volunteer Coordinator

Interpretive Programs

Director, Exhibits Coordinator, School Services Coordinator, Exhibit Designer, Education Assistant, Exhibit Production Manager, Exhibits Preparator (.5), Field Services Coordinator, Folklife Program Coordinator, Public Programs Coordinator, Traveling Exhibits Coordinator

Press

Director, Press Sales Manager, Order Clerk (.5), *Oregon History* Magazine Editor (.5), OHQ Editor

Facilities

Director, Building Engineer, Security Chief, Security Guards (2), Janitors (2)

Museum Store

Manager, Assistant Store Managers (1.4), Sales Clerk (.6)

Executive & Development (9 FTE)

Executive Director, Executive Secretary

Development & Marketing

Director, Development Officer, Membership Coordinator, Development Coordinator, Grants Coordinator, Rentals Coordinator, Public Information Officer

Finance & Administration (8 FTE)

Deputy Director

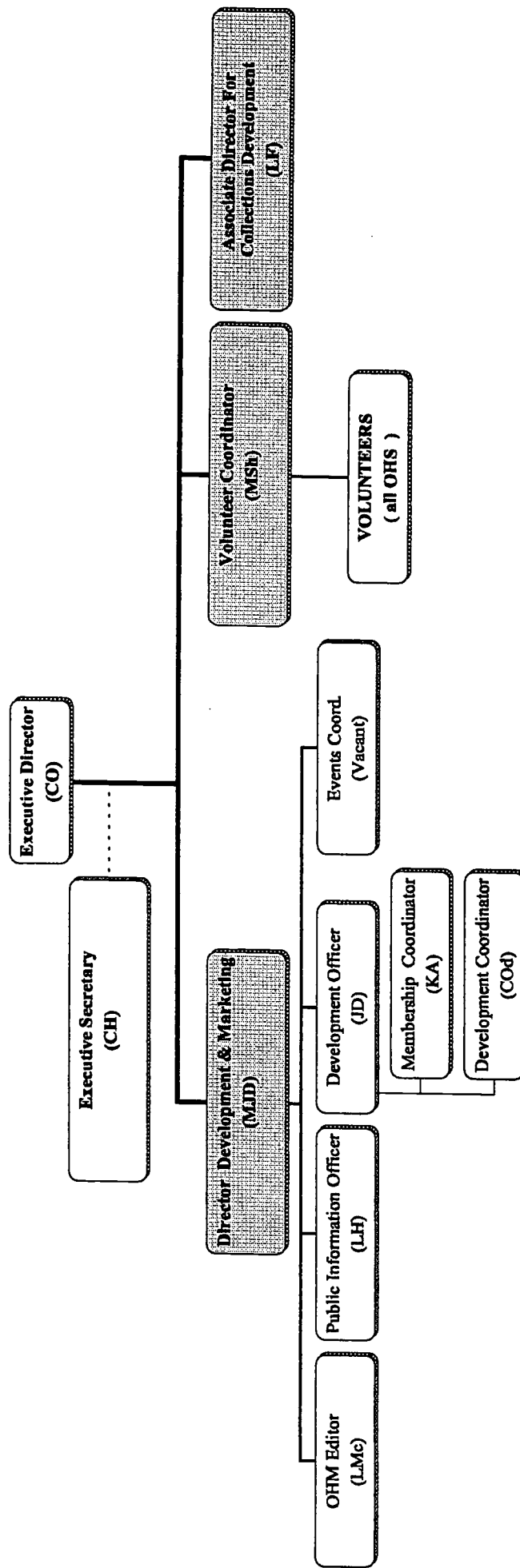
Accounting

Director, A/R Specialist, A/P Specialist, GL/Payroll Specialist, Accounting/Mail Clerk

Information Systems

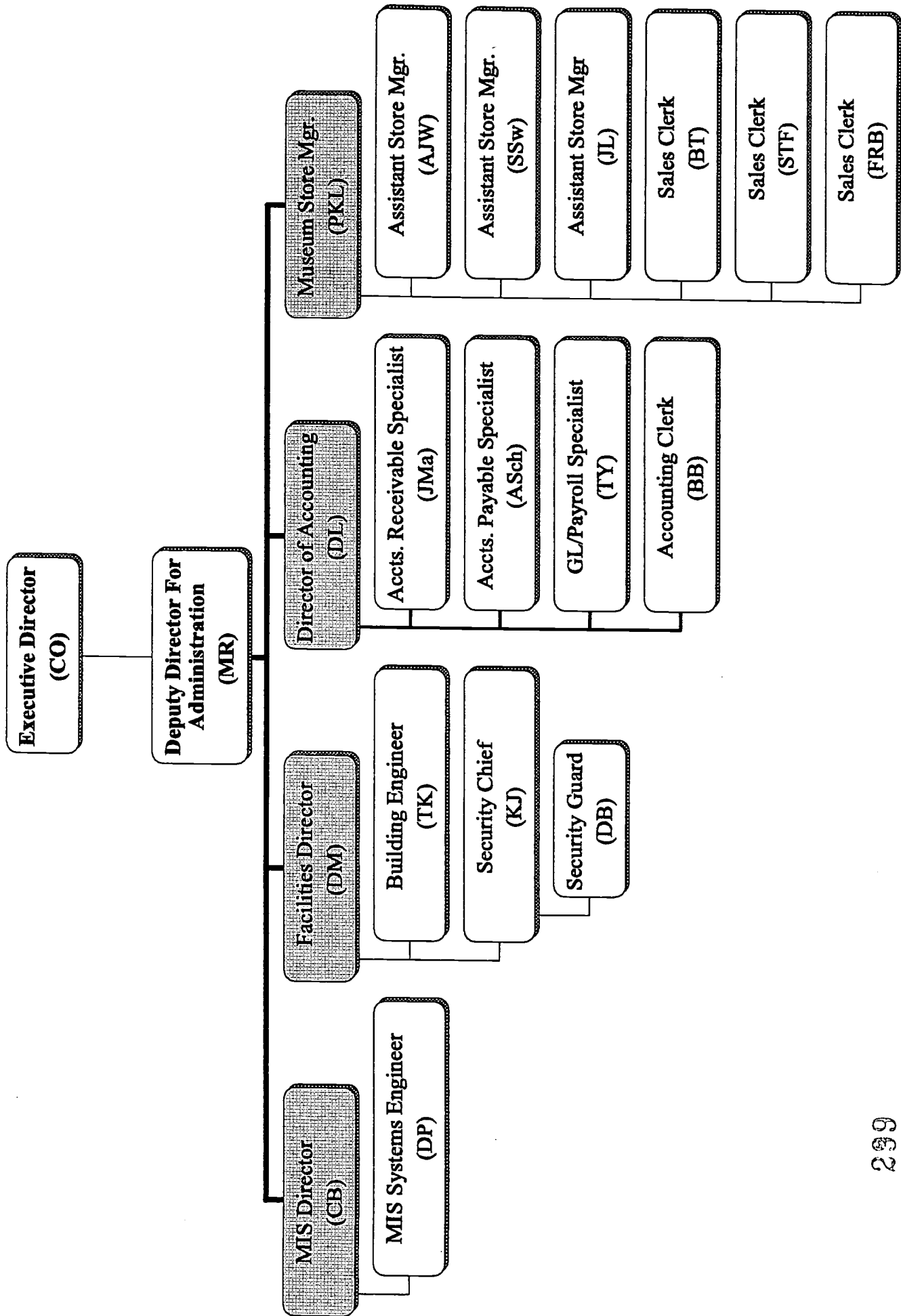
Director, MIS Systems Engineer

OREGON HISTORICAL SOCIETY ORGANIZATION CHART EXECUTIVE DIVISION

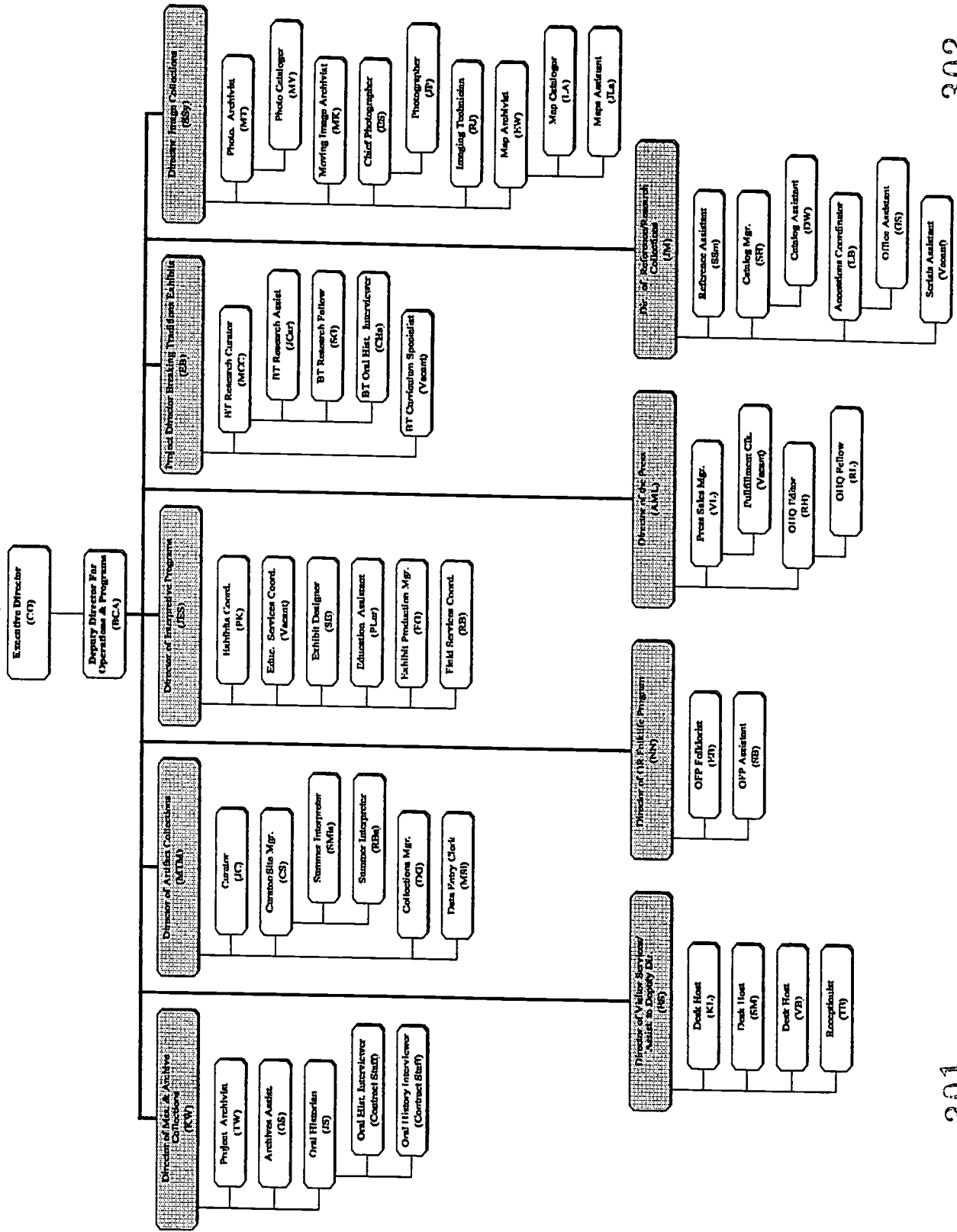


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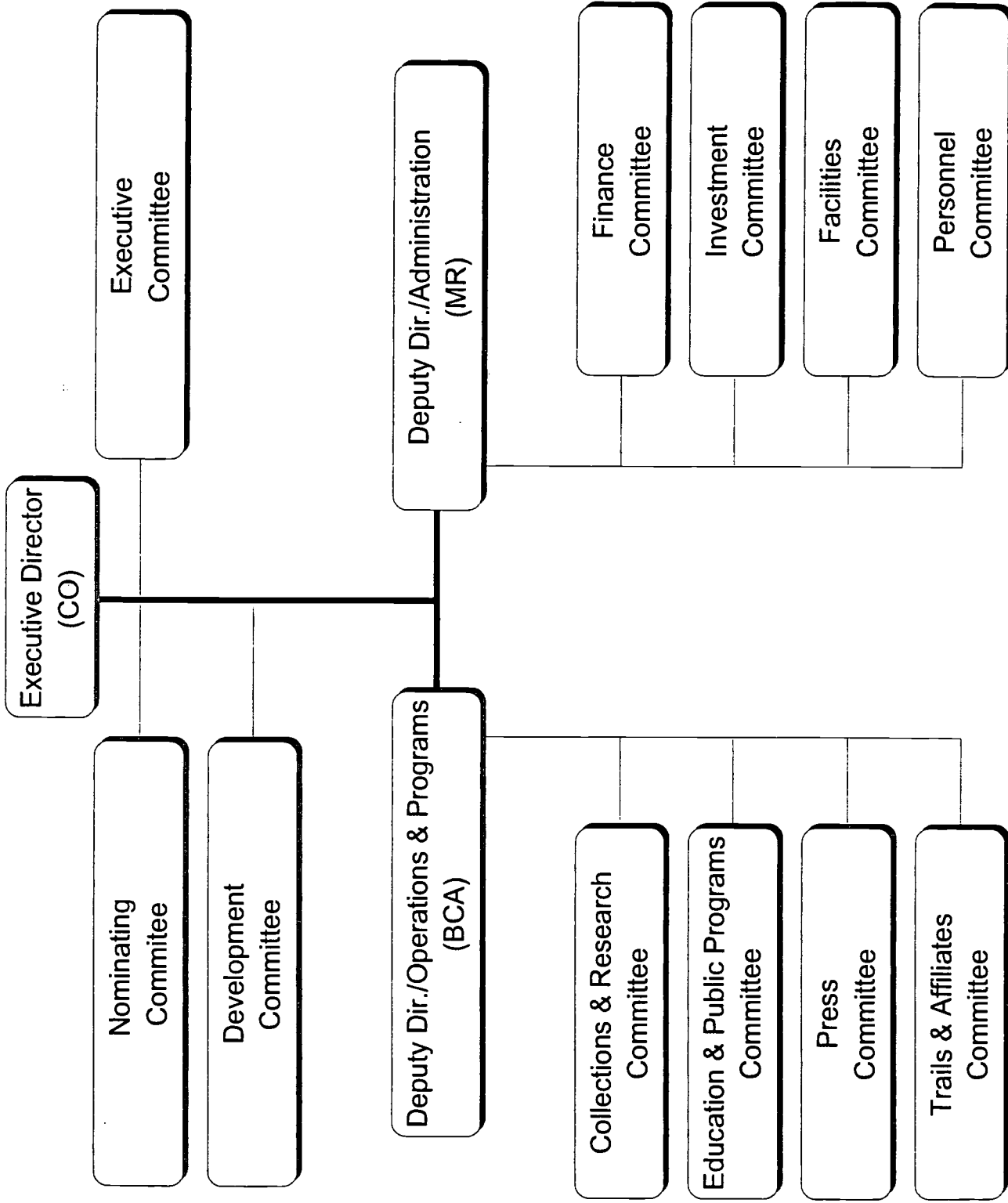
OREGON HISTORICAL SOCIETY ORGANIZATION CHART ADMINISTRATION DIVISION



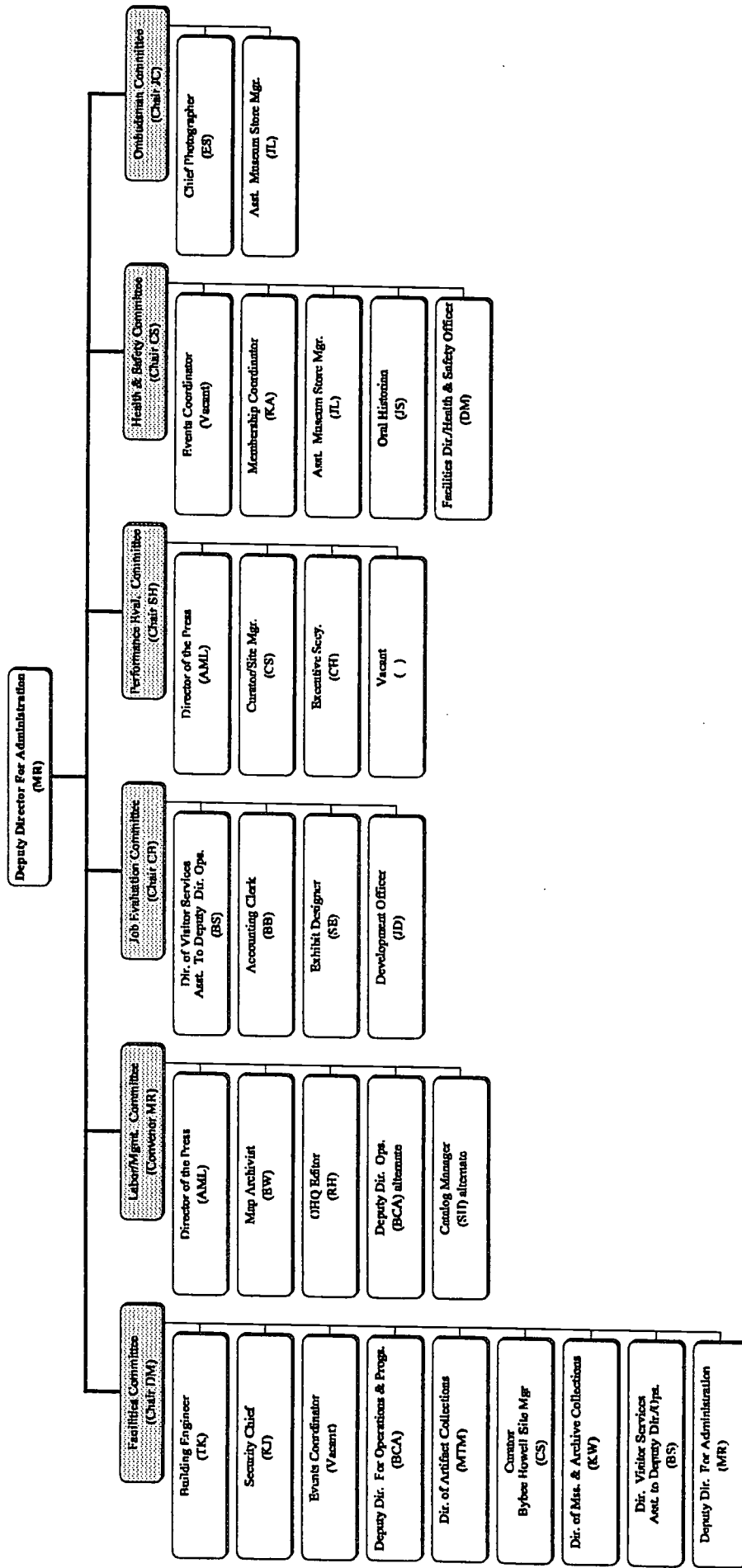
OREGON HISTORICAL SOCIETY ORGANIZATION CHART OPERATIONS & PROGRAMS DIVISION



OREGON HISTORICAL SOCIETY BOARD COMMITTEE STRUCTURE



OREGON HISTORICAL SOCIETY STAFF COMMITTEE STRUCTURE ADMINISTRATION DIVISION

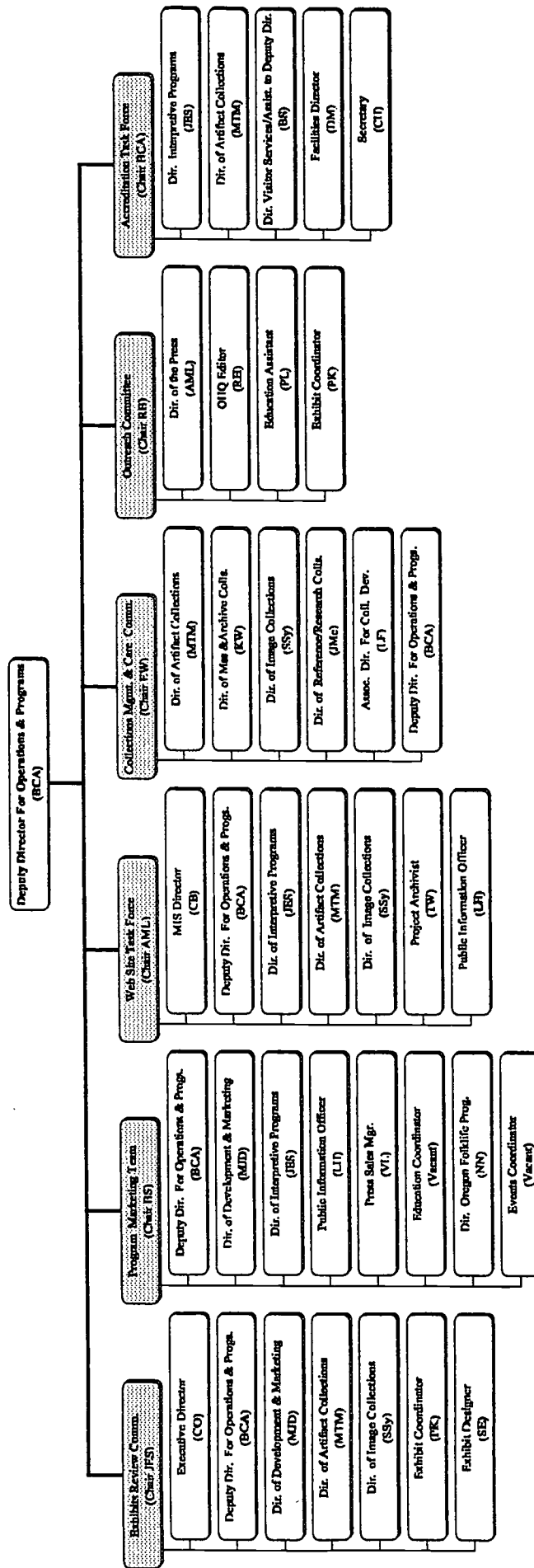


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OREGON HISTORICAL SOCIETY

STAFF COMMITTEE STRUCTURE

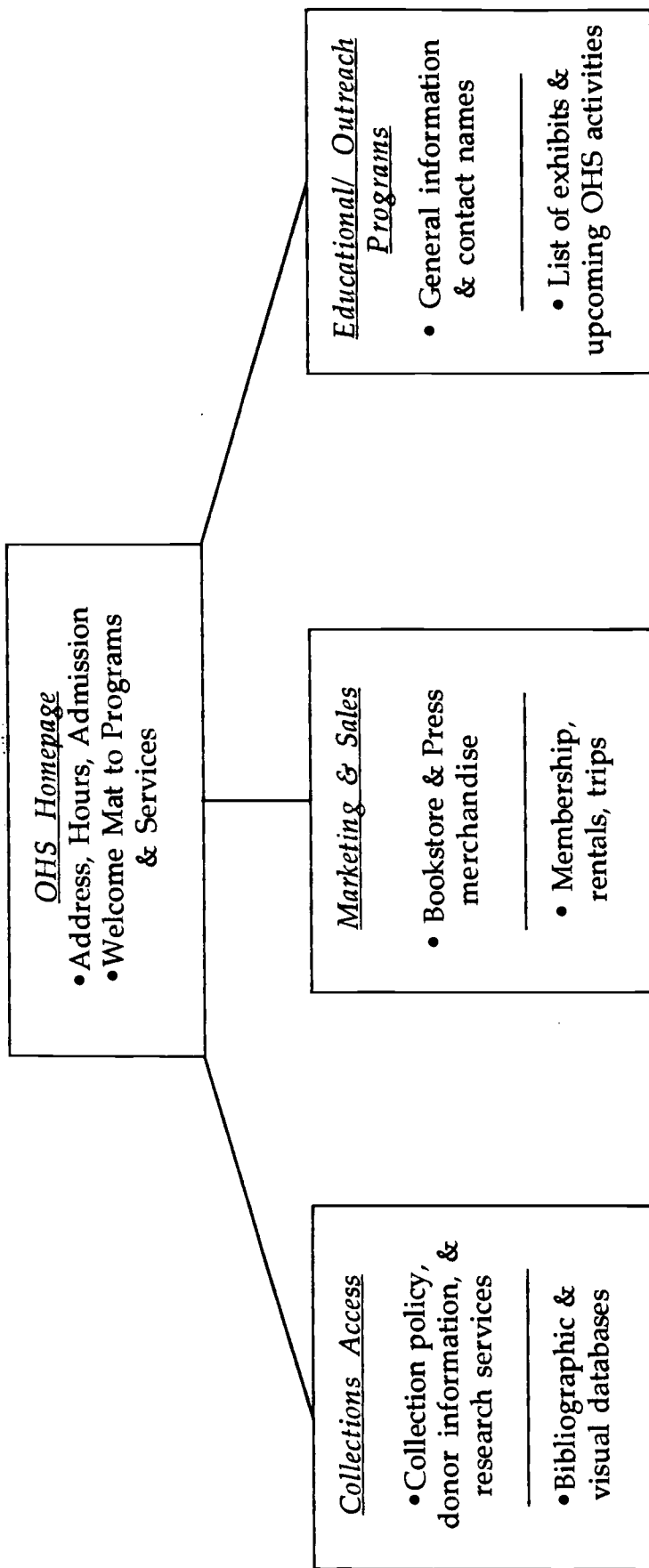
OPERATIONS & PROGRAMS DIVISION

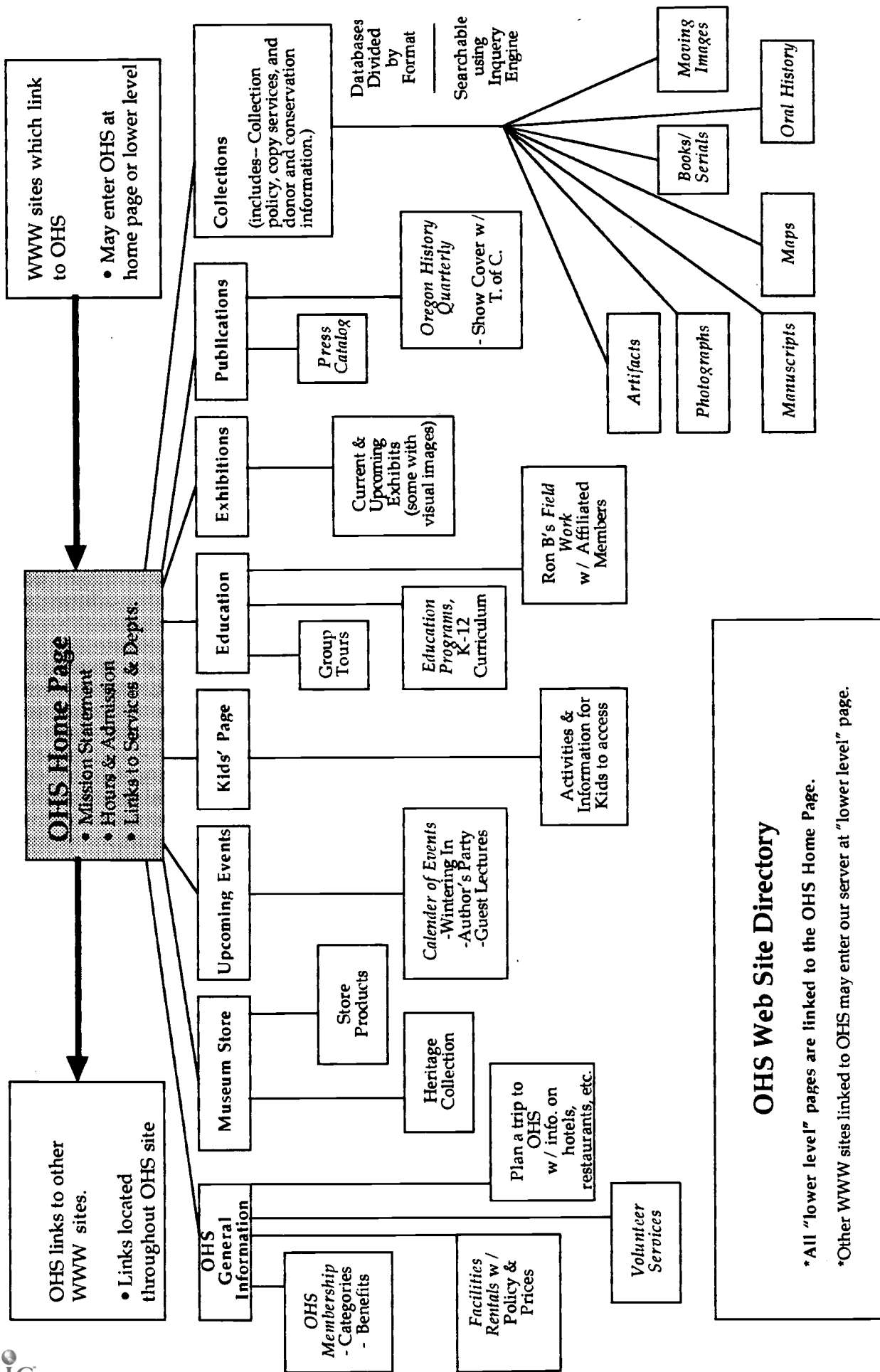


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Appendix H-3

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drafted 10.21.96

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Properties

Date Created: 9/7/96 12:26:07 PM
 Last Updated: 12/6/96 11:18:50 AM

Def. Updatable: Yes
 Record Count: 899

Columns

Name	Type	Size
Image id:	Text	50
Allow Zero Length:	No	
Attributes:	Variable Length	
Collating Order:	General	
Column Hidden:	No	
Column Order:	Default	
Column Width:	Default	
Data Updatable:	No	
Description:	Image file name	
Ordinal Position:	1	
Required:	1	
Source Field:	Image id:	
Source Table:	Fields	
Validate On Set:	No	
Slide film roll:	Text	50
Allow Zero Length:	No	
Attributes:	Variable Length	
Collating Order:	General	
Column Hidden:	No	
Column Order:	Default	
Column Width:	Default	
Data Updatable:	No	
Description:	Location of original slide film roll	
Ordinal Position:	2	
Required:	No	
Source Field:	Slide film roll:	
Source Table:	Fields	
Validate On Set:	No	
PhotoCD:	Text	50
Allow Zero Length:	No	
Attributes:	Variable Length	
Collating Order:	General	
Column Hidden:	No	
Column Order:	Default	
Column Width:	Default	
Data Updatable:	No	
Description:	PhotoCD identification	
Ordinal Position:	3	
Required:	No	
Source Field:	PhotoCD:	
Source Table:	Fields	

Validate On Set:	No		
CD item #		Number (Double)	8
Allow Zero Length:	No		
Attributes:	Fixed Size		
Collating Order:	Unknown or Undefined		
Column Hidden:	No		
Column Order:	Default		
Column Width:	Default		
Data Updatable:	No		
Decimal Places:	Auto		
Default Value:	0		
Description:	Sequence number on CD		
Ordinal Position:	4		
Required:	No		
Source Field:	CD item #		
Source Table:	Fields		
Validate On Set:	No		
Image type:		Text	50
Allow Zero Length:	No		
Attributes:	Variable Length		
Collating Order:	General		
Column Hidden:	No		
Column Order:	Default		
Column Width:	Default		
Data Updatable:	No		
Description:	Manuscript/Photograph/Map/etc.		
Format:	yes; no		
Ordinal Position:	5		
Required:	No		
Source Field:	Image type:		
Source Table:	Fields		
Validate On Set:	No		
Image ?		Text	50
Allow Zero Length:	No		
Attributes:	Variable Length		
Collating Order:	General		
Column Hidden:	No		
Column Order:	Default		
Column Width:	Default		
Data Updatable:	No		
Description:	Is there a image attached?		
Ordinal Position:	6		
Required:	No		
Source Field:	Image ?		
Source Table:	Fields		
Validate On Set:	No		
Thumb path		Text	255
Allow Zero Length:	No		
Attributes:	Variable Length		
Collating Order:	General		

Column Hidden:	No		
Column Order:	Default		
Column Width:	Default		
Data Updatable:	No		
Description:	WWW server path to thumbnail image		
Ordinal Position:	7		
Required:	No		
Source Field:	Thumb path		
Source Table:	Fields		
Validate On Set:	No		
Full path		Text	255
Allow Zero Length:	No		
Attributes:	Variable Length		
Collating Order:	General		
Column Hidden:	No		
Column Order:	Default		
Column Width:	Default		
Data Updatable:	No		
Description:	WWW server path to full size image		
Ordinal Position:	8		
Required:	No		
Source Field:	Full path		
Source Table:	Fields		
Validate On Set:	No		
Previous page path		Text	255
Allow Zero Length:	No		
Attributes:	Variable Length		
Collating Order:	General		
Column Hidden:	No		
Column Order:	Default		
Column Width:	Default		
Data Updatable:	No		
Description:	WWW server 'previous page' path		
Ordinal Position:	9		
Required:	No		
Source Field:	Previous page path		
Source Table:	Fields		
Validate On Set:	No		
Previous image id		Text	50
Allow Zero Length:	No		
Attributes:	Variable Length		
Collating Order:	General		
Column Hidden:	No		
Column Order:	Default		
Column Width:	Default		
Data Updatable:	No		
Description:	Previous image file name		
Ordinal Position:	10		
Required:	No		
Source Field:	Previous image id		
Source Table:	Fields		

Validate On Set:	No		
Next page path		Text	255
Allow Zero Length:	No		
Attributes:	Variable Length		
Collating Order:	General		
Column Hidden:	No		
Column Order:	Default		
Column Width:	Default		
Data Updatable:	No		
Description:	WWW server 'next page' path		
Ordinal Position:	11		
Required:	No		
Source Field:	Next page path		
Source Table:	Fields		
Validate On Set:	No		
Next image id		Text	50
Allow Zero Length:	No		
Attributes:	Variable Length		
Collating Order:	General		
Column Hidden:	No		
Column Order:	Default		
Column Width:	Default		
Data Updatable:	No		
Description:	Next image file name		
Ordinal Position:	12		
Required:	No		
Source Field:	Next image id		
Source Table:	Fields		
Validate On Set:	No		
Text page path		Text	255
Allow Zero Length:	No		
Attributes:	Variable Length		
Collating Order:	General		
Column Hidden:	No		
Column Order:	Default		
Column Width:	Default		
Data Updatable:	No		
Description:	WWW server 'text page' path		
Ordinal Position:	13		
Required:	No		
Source Field:	Text page path		
Source Table:	Fields		
Validate On Set:	No		
List path		Text	255
Allow Zero Length:	No		
Attributes:	Variable Length		
Collating Order:	General		
Column Hidden:	No		
Column Order:	Default		
Column Width:	Default		

Data Updatable:	No		
Description:	WWW server 'search list' path		
Ordinal Position:	14		
Required:	No		
Source Field:	List path		
Source Table:	Fields		
Validate On Set:	No		
Search DB		Text	255
Allow Zero Length:	No		
Attributes:	Variable Length		
Collating Order:	General		
Column Hidden:	No		
Column Order:	Default		
Column Width:	Default		
Data Updatable:	No		
Description:	WWW server 'search inquiry database' path		
Ordinal Position:	15		
Required:	No		
Source Field:	Search DB		
Source Table:	Fields		
Validate On Set:	No		
Local call number:		Text	100
Allow Zero Length:	No		
Attributes:	Variable Length		
Collating Order:	General		
Column Hidden:	No		
Column Order:	Default		
Column Width:	Default		
Data Updatable:	No		
Description:	Image identification and location		
Ordinal Position:	16		
Required:	No		
Source Field:	Local call number:		
Source Table:	Fields		
Validate On Set:	No		
OrgLot		Number (Integer)	2
Allow Zero Length:	No		
Attributes:	Fixed Size		
Collating Order:	Unknown or Undefined		
Column Hidden:	No		
Column Order:	Default		
Column Width:	Default		
Data Updatable:	No		
Decimal Places:	Auto		
Default Value:	0		
Description:	Photograph organized lot		
Ordinal Position:	17		
Required:	No		
Source Field:	OrgLot		
Source Table:	Fields		
Validate On Set:	No		

Series		Text	50
Allow Zero Length:	No		
Attributes:	Variable Length		
Collating Order:	General		
Column Hidden:	No		
Column Order:	Default		
Column Width:	Default		
Data Updatable:	No		
Description:	Photograph series id.		
Ordinal Position:	18		
Required:	No		
Source Field:	Series		
Source Table:	Fields		
Validate On Set:	No		
Page title		Text	255
Allow Zero Length:	No		
Attributes:	Variable Length		
Collating Order:	General		
Column Hidden:	No		
Column Order:	Default		
Column Width:	Default		
Data Updatable:	No		
Description:	Images, manuscripts, pictures		
Ordinal Position:	19		
Required:	No		
Source Field:	Page title		
Source Table:	Fields		
Validate On Set:	No		
Number of pages/images:		Text	50
Allow Zero Length:	No		
Attributes:	Variable Length		
Collating Order:	General		
Column Hidden:	No		
Column Order:	Default		
Column Width:	Default		
Data Updatable:	No		
Description:	Number of pages or images associated with original		
Ordinal Position:	20		
Required:	No		
Source Field:	Number of pages/images:		
Source Table:	Fields		
Validate On Set:	No		
Page #		Text	50
Allow Zero Length:	No		
Attributes:	Variable Length		
Collating Order:	General		
Column Hidden:	No		
Column Order:	Default		
Column Width:	Default		
Data Updatable:	No		
Description:	Page number of document		

Ordinal Position:	21		
Required:	No		
Source Field:	Page #		
Source Table:	Fields		
Validate On Set:	No		
Creator title		Text	255
Allow Zero Length:	No		
Attributes:	Variable Length		
Collating Order:	General		
Column Hidden:	No		
Column Order:	Default		
Column Width:	Default		
Data Updatable:	No		
Description:	Creator/photographer/collector		
Ordinal Position:	22		
Required:	No		
Source Field:	Creator title		
Source Table:	Fields		
Validate On Set:	No		
Creator/Collector:		Text	255
Allow Zero Length:	No		
Attributes:	Variable Length		
Collating Order:	General		
Column Hidden:	No		
Column Order:	Default		
Column Width:	Default		
Data Updatable:	No		
Description:	Main entry		
Ordinal Position:	23		
Required:	No		
Source Field:	Creator/Collector:		
Source Table:	Fields		
Validate On Set:	No		
Edition		Text	50
Allow Zero Length:	No		
Attributes:	Variable Length		
Collating Order:	General		
Column Hidden:	No		
Column Order:	Default		
Column Width:	Default		
Data Updatable:	No		
Description:	Map edition		
Ordinal Position:	24		
Required:	No		
Source Field:	Edition		
Source Table:	Fields		
Validate On Set:	No		
Title:		Text	255
Allow Zero Length:	No		
Attributes:	Variable Length		

	Collating Order:	General	
	Column Hidden:	No	
	Column Order:	Default	
	Column Width:	Default	
	Data Updatable:	No	
	Description:	Title of image (includes date, place, to whom)	
	Ordinal Position:	25	
	Required:	No	
	Source Field:	Title:	
	Source Table:	Fields	
	Validate On Set:	No	
Imprint		Text	255
	Allow Zero Length:	No	
	Attributes:	Variable Length	
	Collating Order:	General	
	Column Hidden:	No	
	Column Order:	Default	
	Column Width:	Default	
	Data Updatable:	No	
	Description:	Map: place of publication, publisher, date	
	Ordinal Position:	26	
	Required:	No	
	Source Field:	Imprint	
	Source Table:	Fields	
	Validate On Set:	No	
Scale		Text	50
	Allow Zero Length:	No	
	Attributes:	Variable Length	
	Collating Order:	General	
	Column Hidden:	No	
	Column Order:	Default	
	Column Width:	Default	
	Data Updatable:	No	
	Description:	Map: representative fraction	
	Ordinal Position:	27	
	Required:	No	
	Source Field:	Scale	
	Source Table:	Fields	
	Validate On Set:	No	
Date:		Date/Time	8
	Allow Zero Length:	No	
	Attributes:	Fixed Size	
	Collating Order:	Unknown or Undefined	
	Column Hidden:	No	
	Column Order:	Default	
	Column Width:	Default	
	Data Updatable:	No	
	Description:	Date of creation	
	Ordinal Position:	28	
	Required:	No	
	Source Field:	Date:	

Source Table:	Fields	
Validate On Set:	No	
Physical description:	Text	255
Allow Zero Length:	No	
Attributes:	Variable Length	
Collating Order:	General	
Column Hidden:	No	
Column Order:	Default	
Column Width:	Default	
Data Updatable:	No	
Description:	Physical description of original	
Ordinal Position:	29	
Required:	No	
Source Field:	Physical description:	
Source Table:	Fields	
Validate On Set:	No	
Use permission:	Text	255
Allow Zero Length:	No	
Attributes:	Variable Length	
Collating Order:	General	
Column Hidden:	No	
Column Order:	Default	
Column Width:	Default	
Data Updatable:	No	
Description:	Restrictions on use/copyright	
Ordinal Position:	30	
Required:	No	
Source Field:	Use permission:	
Source Table:	Fields	
Validate On Set:	No	
Content description:	Memo	-
Allow Zero Length:	No	
Attributes:	Variable Length	
Collating Order:	General	
Column Hidden:	No	
Column Order:	Default	
Column Width:	Default	
Data Updatable:	No	
Description:	Describes the intellectual information of image	
Ordinal Position:	31	
Required:	No	
Source Field:	Content description:	
Source Table:	Fields	
Validate On Set:	No	
Historical note:	Memo	-
Allow Zero Length:	No	
Attributes:	Variable Length	
Collating Order:	General	
Column Hidden:	No	
Column Order:	Default	

Column Width:	Default		
Data Updatable:	No		
Description:	Describes historical and biographical information		
Ordinal Position:	32		
Required:	No		
Source Field:	Historical note:		
Source Table:	Fields		
Validate On Set:	No		
Collection name:	Text	255	
Allow Zero Length:	No		
Attributes:	Variable Length		
Collating Order:	General		
Column Hidden:	No		
Column Order:	Default		
Column Width:	Default		
Data Updatable:	No		
Description:	Name of collection		
Ordinal Position:	33		
Required:	No		
Source Field:	Collection name:		
Source Table:	Fields		
Validate On Set:	No		
Collection guide path	Text	255	
Allow Zero Length:	No		
Attributes:	Variable Length		
Collating Order:	General		
Column Hidden:	No		
Column Order:	Default		
Column Width:	Default		
Data Updatable:	No		
Description:	WWW server path for collection guide		
Ordinal Position:	34		
Required:	No		
Source Field:	Collection guide path		
Source Table:	Fields		
Validate On Set:	No		
Collection guide id	Text	50	
Allow Zero Length:	No		
Attributes:	Variable Length		
Collating Order:	General		
Column Hidden:	No		
Column Order:	Default		
Column Width:	Default		
Data Updatable:	No		
Description:	Collection guide identification		
Ordinal Position:	35		
Required:	No		
Source Field:	Collection guide id		
Source Table:	Fields		
Validate On Set:	No		

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Persons title		Text	255
Allow Zero Length:	No		
Attributes:	Variable Length		
Collating Order:	General		
Column Hidden:	No		
Column Order:	Default		
Column Width:	Default		
Data Updatable:	No		
Description:	Persons		
Ordinal Position:	36		
Required:	No		
Source Field:	Persons title		
Source Table:	Fields		
Validate On Set:	No		
Persons:		Text	255
Allow Zero Length:	No		
Attributes:	Variable Length		
Collating Order:	General		
Column Hidden:	No		
Column Order:	Default		
Column Width:	Default		
Data Updatable:	No		
Description:	LC personal names subjects		
Ordinal Position:	37		
Required:	No		
Source Field:	Persons:		
Source Table:	Fields		
Validate On Set:	No		
Person2		Text	255
Allow Zero Length:	No		
Attributes:	Variable Length		
Collating Order:	General		
Column Hidden:	No		
Column Order:	Default		
Column Width:	Default		
Data Updatable:	No		
Description:	"	"	
Ordinal Position:	38		
Required:	No		
Source Field:	Person2		
Source Table:	Fields		
Validate On Set:	No		
Person3		Text	255
Allow Zero Length:	No		
Attributes:	Variable Length		
Collating Order:	General		
Column Hidden:	No		
Column Order:	Default		
Column Width:	Default		
Data Updatable:	No		
Description:	"	"	

	Ordinal Position:	39		
	Required:	No		
	Source Field:	Person3		
	Source Table:	Fields		
	Validate On Set:	No		
Person4			Text	255
	Allow Zero Length:	No		
	Attributes:	Variable Length		
	Collating Order:	General		
	Column Hidden:	No		
	Column Order:	Default		
	Column Width:	Default		
	Data Updatable:	No		
	Description:	" "		
	Ordinal Position:	40		
	Required:	No		
	Source Field:	Person4		
	Source Table:	Fields		
	Validate On Set:	No		
Corporate title			Text	255
	Allow Zero Length:	No		
	Attributes:	Variable Length		
	Collating Order:	General		
	Column Hidden:	No		
	Column Order:	Default		
	Column Width:	Default		
	Data Updatable:	No		
	Description:	Corporate		
	Ordinal Position:	41		
	Required:	No		
	Source Field:	Corporate title		
	Source Table:	Fields		
	Validate On Set:	No		
Corporate bodies:			Text	255
	Allow Zero Length:	No		
	Attributes:	Variable Length		
	Collating Order:	General		
	Column Hidden:	No		
	Column Order:	Default		
	Column Width:	Default		
	Data Updatable:	No		
	Description:	LC corporate names subjects		
	Ordinal Position:	42		
	Required:	No		
	Source Field:	Corporate bodies:		
	Source Table:	Fields		
	Validate On Set:	No		
Corporate2			Text	255
	Allow Zero Length:	No		
	Attributes:	Variable Length		

Collating Order:	General		
Column Hidden:	No		
Column Order:	Default		
Column Width:	Default		
Data Updatable:	No		
Description:	"	"	
Ordinal Position:	43		
Required:	No		
Source Field:	Corporate2		
Source Table:	Fields		
Validate On Set:	No		
Corporate3		Text	255
Allow Zero Length:	No		
Attributes:	Variable Length		
Collating Order:	General		
Column Hidden:	No		
Column Order:	Default		
Column Width:	Default		
Data Updatable:	No		
Description:	"	"	
Ordinal Position:	44		
Required:	No		
Source Field:	Corporate3		
Source Table:	Fields		
Validate On Set:	No		
Corporate4		Text	255
Allow Zero Length:	No		
Attributes:	Variable Length		
Collating Order:	General		
Column Hidden:	No		
Column Order:	Default		
Column Width:	Default		
Data Updatable:	No		
Description:	"	"	
Ordinal Position:	45		
Required:	No		
Source Field:	Corporate4		
Source Table:	Fields		
Validate On Set:	No		
Subjects title		Text	255
Allow Zero Length:	No		
Attributes:	Variable Length		
Collating Order:	General		
Column Hidden:	No		
Column Order:	Default		
Column Width:	Default		
Data Updatable:	No		
Description:	Subjects		
Ordinal Position:	46		
Required:	No		
Source Field:	Subjects title		

Source Table:	Fields		
Validate On Set:	No		
Subjects:		Text	255
Allow Zero Length:	No		
Attributes:	Variable Length		
Collating Order:	General		
Column Hidden:	No		
Column Order:	Default		
Column Width:	Default		
Data Updatable:	No		
Description:	LC topical subject headings		
Ordinal Position:	47		
Required:	No		
Source Field:	Subjects:		
Source Table:	Fields		
Validate On Set:	No		
Subject2		Text	255
Allow Zero Length:	No		
Attributes:	Variable Length		
Collating Order:	General		
Column Hidden:	No		
Column Order:	Default		
Column Width:	Default		
Data Updatable:	No		
Description:	"	"	
Ordinal Position:	48		
Required:	No		
Source Field:	Subject2		
Source Table:	Fields		
Validate On Set:	No		
Subject3		Text	255
Allow Zero Length:	No		
Attributes:	Variable Length		
Collating Order:	General		
Column Hidden:	No		
Column Order:	Default		
Column Width:	Default		
Data Updatable:	No		
Description:	"	"	
Ordinal Position:	49		
Required:	No		
Source Field:	Subject3		
Source Table:	Fields		
Validate On Set:	No		
Subject4		Text	255
Allow Zero Length:	No		
Attributes:	Variable Length		
Collating Order:	General		
Column Hidden:	No		
Column Order:	Default		

	Column Width:	Default		
	Data Updatable:	No		
	Description:	"	"	
	Ordinal Position:	50		
	Required:	No		
	Source Field:	Subject4		
	Source Table:	Fields		
	Validate On Set:	No		
Subject5			Text	255
	Allow Zero Length:	No		
	Attributes:	Variable Length		
	Collating Order:	General		
	Column Hidden:	No		
	Column Order:	Default		
	Column Width:	Default		
	Data Updatable:	No		
	Description:	"	"	
	Ordinal Position:	51		
	Required:	No		
	Source Field:	Subject5		
	Source Table:	Fields		
	Validate On Set:	No		
Places title			Text	255
	Allow Zero Length:	No		
	Attributes:	Variable Length		
	Collating Order:	General		
	Column Hidden:	No		
	Column Order:	Default		
	Column Width:	Default		
	Data Updatable:	No		
	Description:	Places		
	Ordinal Position:	52		
	Required:	No		
	Source Field:	Places title		
	Source Table:	Fields		
	Validate On Set:	No		
Places:			Text	255
	Allow Zero Length:	No		
	Attributes:	Variable Length		
	Collating Order:	General		
	Column Hidden:	No		
	Column Order:	Default		
	Column Width:	Default		
	Data Updatable:	No		
	Description:	LC geographical subject headings		
	Ordinal Position:	53		
	Required:	No		
	Source Field:	Places:		
	Source Table:	Fields		
	Validate On Set:	No		

Place2		Text	255
Allow Zero Length:	No		
Attributes:	Variable Length		
Collating Order:	General		
Column Hidden:	No		
Column Order:	Default		
Column Width:	Default		
Data Updatable:	No		
Description:	"	"	
Ordinal Position:	54		
Required:	No		
Source Field:	Place2		
Source Table:	Fields		
Validate On Set:	No		
Place3		Text	255
Allow Zero Length:	No		
Attributes:	Variable Length		
Collating Order:	General		
Column Hidden:	No		
Column Order:	Default		
Column Width:	Default		
Data Updatable:	No		
Description:	"	"	
Ordinal Position:	55		
Required:	No		
Source Field:	Place3		
Source Table:	Fields		
Validate On Set:	No		
Place4		Text	255
Allow Zero Length:	No		
Attributes:	Variable Length		
Collating Order:	General		
Column Hidden:	No		
Column Order:	Default		
Column Width:	Default		
Data Updatable:	No		
Description:	"	"	
Ordinal Position:	56		
Required:	No		
Source Field:	Place4		
Source Table:	Fields		
Validate On Set:	No		
Repository:		Text	255
Allow Zero Length:	No		
Attributes:	Variable Length		
Collating Order:	General		
Column Hidden:	No		
Column Order:	Default		
Column Width:	Default		
Data Updatable:	No		
Description:	OHS		

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Ordinal Position:	57
Required:	No
Source Field:	Repository:
Source Table:	Fields
Validate On Set:	No

Table Indexes

Name	Number of Fields
Collection guide id	1
Clustered:	No
Distinct Count:	4
Foreign:	No
Ignore Nulls:	No
Name:	Collection guide id
Primary:	No
Required:	No
Unique:	No
Fields:	Collection guide id, Ascending
Collection name:	1
Clustered:	No
Distinct Count:	9
Foreign:	No
Ignore Nulls:	No
Name:	Collection name:
Primary:	No
Required:	No
Unique:	No
Fields:	Collection name:, Ascending
Creator/Collector:	1
Clustered:	No
Distinct Count:	127
Foreign:	No
Ignore Nulls:	No
Name:	Creator/Collector:
Primary:	No
Required:	No
Unique:	No
Fields:	Creator/Collector:, Ascending
Date:	1
Clustered:	No
Distinct Count:	186
Foreign:	No
Ignore Nulls:	No
Name:	Date:
Primary:	No
Required:	No
Unique:	No
Fields:	Date:, Ascending
Image type:	1

Clustered:	No
Distinct Count:	2
Foreign:	No
Ignore Nulls:	No
Name:	Image type:
Primary:	No
Required:	No
Unique:	No
Fields:	Image type:, Ascending
PrimaryKey	1
Clustered:	No
Distinct Count:	899
Foreign:	No
Ignore Nulls:	No
Name:	PrimaryKey
Primary:	Yes
Required:	Yes
Unique:	Yes
Fields:	Image id:, Ascending
Title:	1
Clustered:	No
Distinct Count:	194
Foreign:	No
Ignore Nulls:	No
Name:	Title:
Primary:	No
Required:	No
Unique:	No
Fields:	Title:, Ascending

User Permissions

admin	Delete, Read Permissions, Set Permissions, Change Owner
guest	
Loretta	
Portland	
Todd	

Group Permissions

Admins	
Guests	
Users	Delete, Read Permissions, Set Permissions, Change Owner

Spring 1995 OHS computer conference. Presentation to staff of what will be occurring for the Department of Education grant. Show examples of images and talk about the process of capturing images and processing images.

8-?-96 Portland Art Museum Show them the beta web site and talk about the process that we are using to put images on line. Particular wanted to know about file formats and storage. Wanted to know a lot about Kodak CD Rom and how they could be of use to them. Lots of questions about the equipment that I used to bring images on line.

10-22-96 Imaging Seminar in Portland, sponsored by Rono Graphics Communications Co. covering topics of Scanning, Photoshop and prepress techniques. Other key topics included preparing and linking graphics for web pages.

11-21-96 Portland Community College Library Staff. Wanted to see a demonstration of the web site, and the imaging process. Also were very interested in costs involved with creating and storing the images. Many hardware and software issues were discussed. File organization was another key issue. John Jackson.

1-28-97 Carol Sherman of Oddisy Productions and Jim Blashfield a prominent video producer are working on a project to display historic images of Oregon in City Hall. The images will be integrated in a video narrative that will be on permanent display in the lobby. They needed a lot of technical information about hardware and software, as well as a detailed discussion on the issues of scanning and digitizing. This is an on going project for me, and sue and mikki who spend a great amount of time helping them with selection of images.

2-11-97 Showed the web site to representative of Boeing. Talked about the site and how things were created and what they would look like when the project is complete.

2-12-97 Showed the web site to representative of US West communications. Talked about the site and how things were created and what they would look like when the project is complete.

2-14-97 Gave demonstration of the web site to OHS Board Members. Discussed the issues of imaging and what we planned to do with the site in the very near future.

2-28-97 *Staff discussion with Bill Hartman who has an information Asset consulting service. He wanted to hear about our project and in turn filled in some questions that we had.*

4-24-97 *Joined the Cornell University Library Department of Preservation and Conservation evaluation on photo cd technology. This is a joint project designed to provide an assessment of image quality by developing benchmarking formulas for conversion and presentation. Todd will be selecting the images used for the evaluation from DOE selected images. The work will occur as normal for me creating the images and CD Rom. Then work sheets will be filled out on each image and turned in to Cornell. Then we shall receive a detailed report containing information from all the participants of the evaluation.*

5-15-97 *Tom Hammen a photographer from Astoria Oregon required a long phone conversation about the process of capturing images and storing them of CD ROMS. Also had lots of questions about the hardware issues involved in creating digital images. He hopes to create and archive of digital images from personal collections and other sources and make them available for viewing on a web page.*

6-11-97 *Reporter Walden Kirsch of KGW News Channel 8, presented TV viewers with a look at the website, and the process of capturing photographs and film for use on the web page. Sue, Myself and Michele were all presented doing are jobs.*

Dissemination:
"Show and Tell"

DOE Project Demonstrations
by Kris White

Portland Area Archivist, Jan. 9, 1997

YWCA Archives and PSU students, Jan. 26, 1997

Portland State Archives Class, Feb. 5, 1997

Statewide Coop. Collection Development Committee, Feb. 27, 1997

State Library Tour, March 25, 1997

Women's Studies, PSU, April 11, 1997

PSU, Education, English, History Tour, June 26, 1997

Multnomah Athletic Club Archives, July 17, 1997

PSU, Public History, Aug. 6, 1997

Portland Art Museum, Aug. 20, 1997

SAA, San Diego, Aug. 28, 1997

DOE Consultants, Sept. 23-24, 1997

PORTALS Map Coop. Project, Sept. 26, 1997

Scandinavian Genealogical Society, Jan. 1997

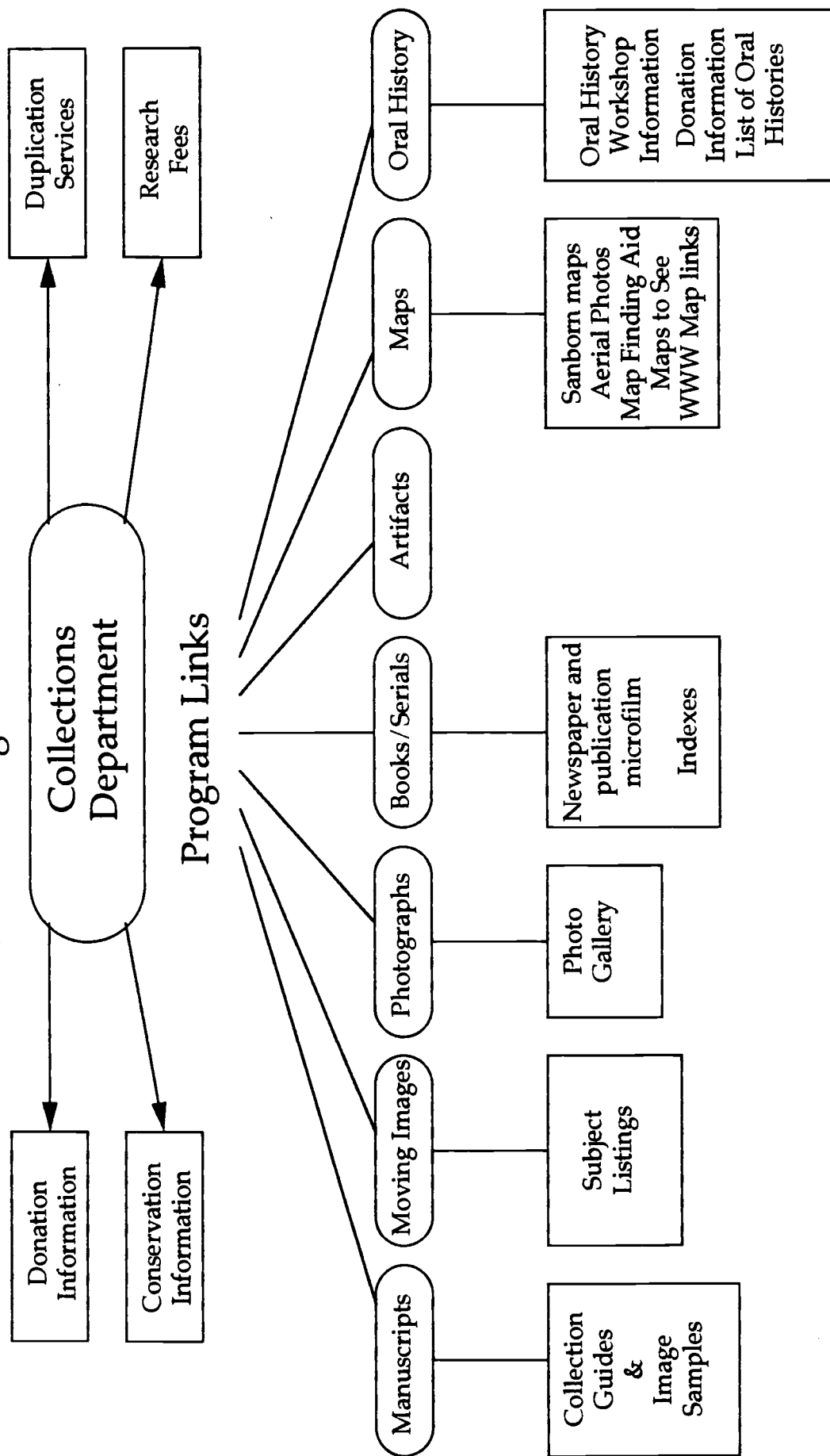
McClure's visit, Jan. 22, 1997

Portland State Archives Class, Feb. 3, 1997

Coop. Collection Development Committee, April 11, 1997

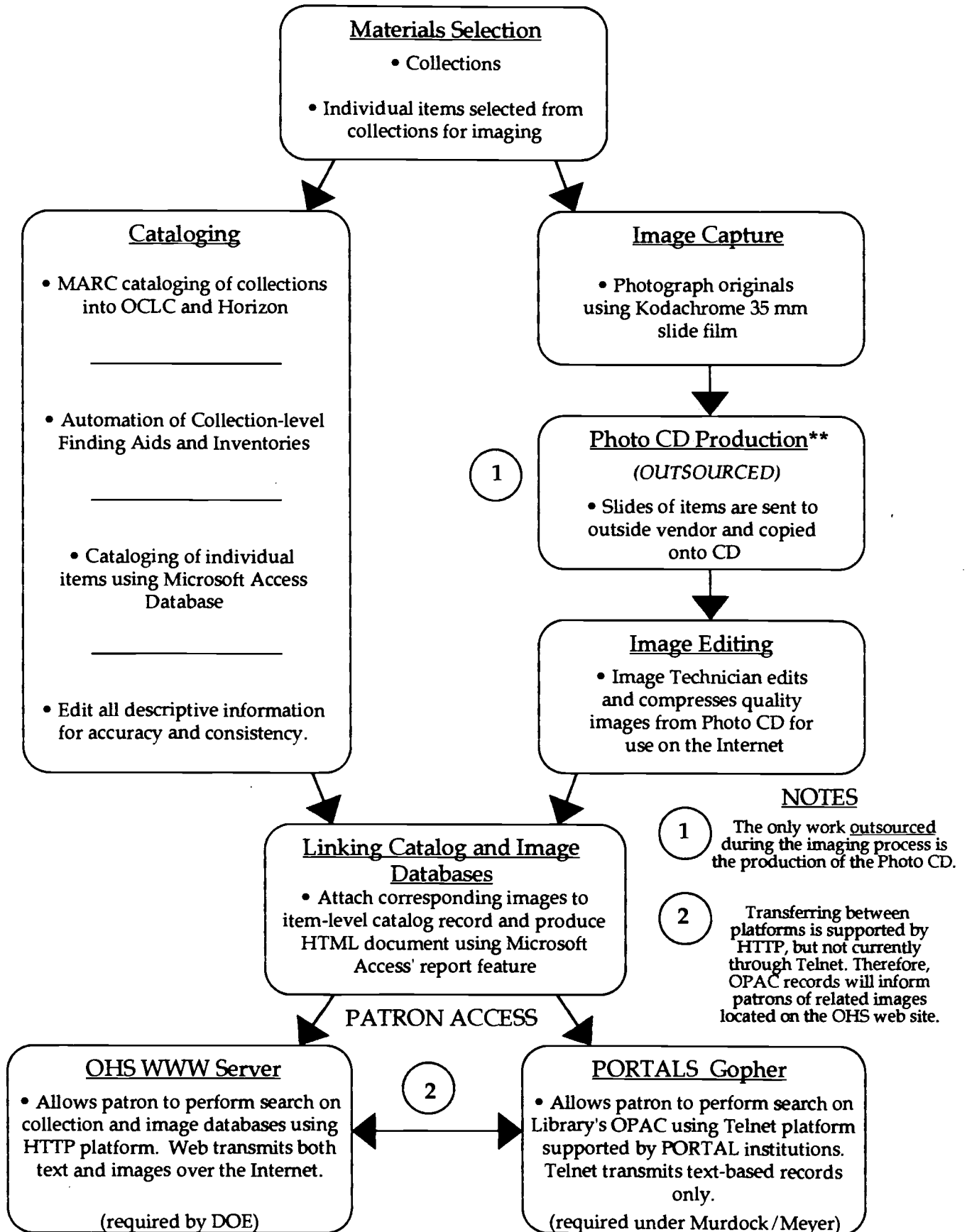
Northwest Archivist annual conference, May 15-17, 1997

Collection Pages for Web Site



*Program pages will also link to Donation, Conservation, Duplication, and Research Fee pages.

DOE Project Work Flow



Map Inventory Records

1

Accession number:

OC/D1/F1

Negative format(s):

Negative view(s):

Negative dimensions:

U. S. Coast Survey.

Added Entry2:

Hydrography of Hunter's Cove, Oregon (unfinished sheet).

Scale:

Imprin

Physical description:

1 map: col.; on sheet 47 x 67 cm.

Series:

Citation note:

Form of additional copies:

1 map: photocopy: on sheet 46 x 67 cm.

Restrictions:

General note:

Blueline print.

Scope note:

Map Indexing Section

Geographic

State

Cit

County

Region

Pacific Northwest ☐

West Coast ☐

Pacific Rim ☐

United States ☐

Canada ☐

North America ☐

Western Hemisphere ☐

World ☐

Other:

Topica

Forestry maps ☐

Soil map ☐

Military maps ☐

Aeronautical charts ☐

Coastal charts ☐

River charts ☐

Railroad maps ☐

Road maps ☐

Street maps ☐

Land ownership ☐

City maps ☐

County maps ☐

Regional maps ☐

State maps ☐

Ind. reservations ☐

Fur trade routes ☐

Enumeration map ☐

Mines and minerals ☐

National maps ☐

Overland trail ☐

Bus route maps ☐

Street railroads ☐

Park and rec. maps ☐

BLM maps ☐

Other:

Hydrographic maps ☐

Map type

Planimetric maps ☐

Aerial ☐

Topographic ☐

Raised relief ☐

Relief (landform) ☐

Globe ☐

Fire insurance ☐

County atlas ☐

Birds-eye view ☐

Wall map ☐

Donation land claim ☐

Other:

Map Inventory Records

Counter:

Record number:

Accession number:

Location:

Negative number(s):

Negative format(s):

Negative view(s):

Negative dimensions:

<input type="text"/>
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DOE PROJECT

IMAGE CAPTURE TO PHOTO CD
PHOTO CD TO WWW

9-24-96

-
- I. SLIDE CAPTURE T64 slide film using copy stand f4 at 16 sec exp.
 - A. Fill out slide log form for all images as you shoot.
 - B. Batch by size and Organized lots.
 - C. First slide each roll DOE # and Kodak Color Correction charts.
 - II. Send out slide film to Photo Craft for processing.
 - A. Label each roll with doe roll number.
 - B. E-6 processing plastic mounting.
 - C. Special instructions. Attention E.J. DOE project. E.J. to Q.C. (Quality Control). Please return Cassettes.
 - D. Xerox all paper work and file.
 - III. Review returned slides.
 - A. Quality control.
 1. Incorrect cropping or mounting.
 2. Check for chemical residue.
 3. Returned all slides.
 - B. Label all slides with ID number (file naming conventions) using slide log form and or original document.
 - C. Group together with images for that ORG. LOT or department etc.
 - IV. Send to Lazer Quick for Photo CD processing.
 - A. Label each slide using Lazer Quick's numbers.
 - B. On each Photo CD include a Kodak Color correction slide.
 - V. Review Photo CD.
 - A. Label photo cd number to slide log forms.
 - B. Print out thumbnails of photo cd.
 - C. Place slides into archival 35mm slide preservers.
 - D. Enter info into Microsoft access data base for tracking.
 1. CD rom number.
 2. Image number on CD rom.
 3. Unique identification number.
 4. What has been done to each image.
 - a. Cropping.
 - b. Color correction.
 - c. Image altered.

VI. Process CD rom images for storage on the Sun server.

1. Create archival processed images.

- a. Open the base image (512x768) from the cd rom. 1.13mb per image, in some cases it will be necessary to open the basex4 image (1024x1536) 4.5 mb per image, due to image size.
- b. Cropping of image.
- c. Color correction of image. Use photoshop levels then brightness and contrast settings.

2. Save images using file naming conventions with Photo CD file name in a directory created using the cd rom unique ID number. These are the processed images that will be used to create the JPG and GIF images for web use. I will be creating PSD files for they store the most info in the least amount of space. Marsh who is creating files for the artifacts collection will be saving her files as TIFF files. TIFF creates a high-quality original, while retaining its integrity. Storage of these images on the network will take up about 77mb per CD Rom. Image file size will vary from approximately 400 kb to 1200 kb. These images will need to be taken off line and stored so that we have room to create more processed images directories. Right now the only way for ohs to do this is to put them on to backup tape. Dwight Peterson (ohs cis) informed me that backup tape would not be a good choice for storage of these images. A good choice would be a removable harddrive unit, an optical drive, or even a new cd rom.

3. Separate images into two directories. One for vertical images and a another for horizontal images. This will allow the batch processor to run unattended.

4. The Batch processor is a part of Adobe Photoshop 4.0 its located in the actions window. It allows the users to select different processes and link them all together using user defined setting. Run Photoshop actions batch processor on both directories.

The batch processor will resize the images to 640 x 480 pixels per inch.

Execute an unsharp mask filter.

Save the images as JPG files with setting set at a quality of 3=medium file size.

Resize the images to 110 x 110 pixels per inch.

Execute an unsharp mask filter.

Save the images as Gif files.

End.

The JPEG file is made first because it is a higher quality image, the GIF format image will be created from the JPEG. The thumbnail will be accessible via the Enquiry search engine as the result of a query list. The Query list will be links to the Thumbnail image with the unique ID number, the image caption and a catalog record, which the Enquiry engine will create on the fly. The thumbnail image and the text will be links to the Full size JPEG image file.

VII. Linking up images to html pages will be as easy as placing images into proper directories on the Sun server with unique ID number (file naming conventions) used for the file names.

9/23/96

Appendix H-9

Method for assigning unique ID number to an item to be digitized

This is all based on 12 character spaces available for file name. All file names will be lower case letters.

Photos, Manuscripts, Maps and Museum all got together yesterday, and agreed (more or less) on something. For the files of images and the text which is to go with them, each department will use a prefix to designate that the record belongs to them, and then whatever number is appropriate, to wit:

Photos	P + negative number
Maps	MAP + consecutive counter number (i.e., 1, 2, 3, 4,...101, 102, 103,...)
Manuscripts	Collection number + Page ID + Document number.
Museum	CD + CD# + ID # (Worked out with Jim Blackaby)

If Oral History decides to have something included, we decided they can use "OH". Moving Images can use "F" (we have enough "M"s already).

We also talked about designating the finding aids and catalog records that will need to be attached to each other in ASCII-land, and decided that ".cat" would be appropriate for the Horizon record (MARC format), and ".inv" would be a good suffix for the finding aid/inventory. These would then match to the graphics files which have their own extensions re: file type (i.e., ".gif").

Web Scanning/Imaging Register

Appendix H10

Date image received _____ OrHi or negative number _____

Name of source (include department) _____ Phone: _____

Purpose/intent of scanning image: ☐ background graphic ☐ thumbnail image ☐ full screen image

Which department web page will the image be located? _____

Description of imaging work: _____

File(s) name: _____

d.p.i. 72 ☐ 96 ☐ 200 ☐ Other ☐

Date original was returned _____

Directory were images are stored? _____ Whom the original was returned to _____

Date image received _____ OrHi or negative number _____

Name of source (include department) _____ Phone: _____

Purpose/intent of scanning image: ☐ background graphic ☐ full screen image

Which department web page will the image be located? _____

Description of imaging work: _____

File(s) name: _____ d.p.i. 72 ☐ 96 ☐ 200 ☐ Other _____

Date original was returned _____

Directory were images are stored? 342 _____ Whom the original was returned to _____

Collections Search Engine

Please define the database(s) you want to search.

Collection Databases

- | | |
|--|--|
| <input type="checkbox"/> [icon] Photograph images | <input type="checkbox"/> [icon] Artifact objects |
| <input type="checkbox"/> [icon] Photograph collection guides | <input type="checkbox"/> [icon] Oral history |
| <input type="checkbox"/> [icon] Manuscript documents | <input type="checkbox"/> [icon] Book collection |
| <input type="checkbox"/> [icon] Manuscript collection guides | <input type="checkbox"/> [icon] Maps |
| <input type="checkbox"/> All databases (default) | |

Search options:

☐ Creator ☐ Title ☐ Subjects ☐ Keywords (default)

Enter search term:

Choose number of returns per search:

10
25
50

OR

Browse Library of Congress subject / name authority listings

[icon] **View** Photo Gallery

* Consists of 20 most requested [or newest] images in photograph image database.

Appendix H-12
MS Access input form

Image type:		DOE roll #:	
<input type="radio"/> Manuscript			
<input type="radio"/> Photograph		PhotoCD:	1178 2
<input type="radio"/> Map		Imageid:	1146a1
Thumb path:			
Full path:			
Previous page path:			
Previous image id:			
Next page path:			
Next image id:		1146b1	
Text page path:			
List path:			
Search DB:			
Local call number:	Mss 1146, box 1, folder 1		
OrgLot:		Series:	
Page title:		Number of images	
Number of pages/images:	2	Page #:	1
Creator title:		Creator	
Main Entry:		Albertson, Nathaniel.	
Title:		Letter, 1852 February 19, to Joseph Lane.	
Date:		2/19/1852	
Physical description:		2 pages.	
Use permission:			

Content description:

Concerns Indiana's democratic presidential convention and Lane's nomination for president of the United States; reports the activities of some on behalf of Lane's candidacy.

Historical note:**Forms part of:**

Joseph Lane papers

Collection guide path:

<http://www.ohs.org/collect/guides>

Collection guide id:

mss1146.htm

Persons title:

Personal names

Albertson, Nathaniel -- Correspondence.

Lane, Joseph, 1801-1881 -- Correspondence.

Corporate title:**Corporate names:****Subjects title:**



Appendix H-13

Date submitted

Date reviewed by WTF

Web Site Proposal for New Material

From: _____ Ext. _____

Desired date online: _____ Is this a deadline? ____ Yes ____ No

To use this form:

1. Fill out the purpose and permissions section.
2. Get initials from review group.
3. Present to Web Task Force Committee. They will review and return proposal with their decision and further questions about organization.

Review

() Info has been reviewed by my Program Director.

Initials

Date

() Info has been reviewed by my Division Head.

Initials

Date

() Info has been reviewed by the Marketing Department.

Initials

Date

Hard copy of proposed web material attached. ____ Yes ____ No

Disc with text attached. ____ Yes ____ No

(Preferred disk format is ASCII. Please talk to MIS Director if you need assistance with converting files.)

g:\users\beths\pmaker\webprop.pm5

Purpose

Please describe your new material.

What audience do you wish to target?

How do you hope your audience will use this information?

How will this benefit the Society?

Is this content currently being distributed in other ways? Please list.

Permissions

Does the Oregon Historical Society hold the rights to all the material your entry be using? If not, who holds the rights and is there a cost?

Organization

What other Web Sites have you visited which you see as possible models for your entry? Please provide URLs and explanations of what you like about them.

Where do you think your new content should fit into the existing OHS Site? Please list the buttons.

What links would you suggest to other OHS information? To or from other sites?

Formatting

If your proposal is accepted, there will be a technical advice meeting to assist in answering the questions below.

- **Text**

Disc is submitted in: ☐ ASCII ☐ WordPerfect 5.1, 6.0, 7.0 (circle one)

- **Graphics**

My proposed material includes graphics.

☐ Yes ☐ No

Ready to:

☐ FTP ☐ Pass on to Imaging Technician

I have my graphic material ready to pass on to the Imaging Technician for scanning in the following format:

☐ Photo ☐ Slide ☐ CD ☐ Included on Disk

I have included a list of 8-character file names.

☐ Yes ☐ No

I have included information about whether the image should be full size, mid-size, or thumbnail.

☐ Yes ☐ No

Will this image be a link to a full size image or another page?

☐ Yes ☐ No

If yes, give page name or image file name.

I have attached hard copy intended to show layout ideas.

☐ Yes ☐ No

Appendix H-14

	Coll. inv. prepared	Coll. inv. reviewed	Coll. Selected	Doc. pgs. rev.	Doc. pgs. selected	Doc. pgs. dedicated	Slides created	Slides reviewed	Doc. pgs. imaged	Doc. imps. enhanced	Doc. imps. cataloged	Set Coll. Card	Imaps. attached	Finding aids attached	Records made available
12/1/95			100	2000	1000										
12/31/95			53	2000	500										
1/13/96			3	2500	500										
1/27/96			3	800	160										
2/10/96			25	1300	100										
2/24/96			25	500	33										
3/9/96			38	450	40										
3/23/96			22	300	38										
4/20/96			21	300	5										
5/4/96			13	290	15										
5/18/96			20	450	10										
6/1/96			38	200	7										
6/18/96			48	300	35										
6/28/96			18	200	200										
7/13/96			10	1017	50										
7/27/96			10	1035	75										
8/10/96			7	700	59										
8/25/96			3	850	38										
9/7/96			8												
10/6/96			10												
10/19/96			10												
11/10/96			5	500	30										
11/20/96			5	800											
12/28/96			11	1100	1										
1/11/97			5	100	78										
2/27/97			3	750											
3/9/97			4	280	200										
3/22/97			4	700	500										
4/5/97			7												
4/19/97			5	400											
5/3/97			1	200											
5/11/97			2												
5/11/97			4												
6/14/97															
6/28/97															
Totals	95	477	181	19530	3427	375	1391	1200	551	103	740	154	33	6	6

	Coll. inv. reviewed	Coll. reviewed	Maps reviewed	Maps selected	Slides created	Maps imaged	Map imgs. enhanced	Map worksheets completed	Maps entered on OCLC	Images attached	Records made available
12/1/95											
12/31/95											
1/13/96											
1/27/96											
2/10/96											
2/24/96											
3/9/96											
3/23/96											
4/6/96	268										
4/20/96											
5/4/96											
5/18/96	37										
6/1/96	252		137	47							
6/15/96				94							
6/29/96			531	32							
7/13/96				161							
7/27/96											
8/10/96											
8/24/96											
9/7/96											
9/21/96											
10/5/96											
10/19/96											
11/2/96											
11/16/96											
11/30/96											
12/14/96											
12/28/96											
1/11/97											
1/25/97											
2/8/97											
2/22/97											
3/8/97											
3/22/97											
4/5/97											
4/19/97											
5/3/97											
5/17/97											
5/31/97											
6/14/97											
6/28/97											
	557	1	668	334	300	0	0	0	183	155	0

BEST COPY AVAILABLE

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Benchmarks--Photographs

	Coll. inventoried	Coll. inv. reviewed	Coll. reviewed	Photos rev.	Photos selected	Copy Negs added	Slides created	Photo CD's Produced	Photos imaged
12/1/95			3	19275	100				100
12/31/95		358							
1/13/96			6	1697	35				
1/27/96			3	594	101	19			
2/10/96			1	1000	59				
2/24/96			5	4666	43	25			
3/9/96			1	2000					
3/23/96									
4/6/96									
4/20/96									
5/4/96									
5/18/96									
6/1/96									
6/15/96									
6/29/96									
7/13/96			5	6225	368	35	50		
7/27/96			7	4598	103	41	97		
8/10/96			8	2235	149	48			
8/24/96						208	49	2	
9/7/96						50	230		
9/21/96						56	218	6	
10/5/96						131	10		55
10/19/96			6	5986	274	21	100		70
11/2/96									15
11/16/96									45
11/30/96			3	734	34		283		125
12/14/96			5	1042	73				
12/28/96			12	1901	173		72	7	15
1/11/97			5	7332	217				60
1/25/97									
2/8/97			1	39	9	67			
2/22/97			1	30	7	100	252		
3/8/97			13	1133	147		145	4	
3/22/97							142		
4/5/97			11	2039	182		153		
4/19/97						42	402		
5/3/97			6	740	88	119			
5/17/97						231	288		
5/31/97						18	128	6	
6/14/97									
6/28/97									
Totals	0	358	102	63266	2162	1211	2619	25	485

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Page 1

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[illegible]

Serial records imported	Local holdings established	Serial records deleted
12/1/95		
12/31/95		
1/13/96		
1/27/96		
2/10/96		
2/24/96		
3/9/96		
3/23/96		
4/6/96		
4/20/96	1300	4
5/4/96		39
5/18/96		42
6/1/96		16
6/15/96		7
6/29/96		35
7/13/96		13
7/27/96		39
8/10/96		39
8/24/96		77
9/7/96		30
9/21/96		38
10/5/96		19
10/19/96		25
11/2/96		13
11/16/96		0
11/30/96		5
12/14/96		0
12/28/96		0
1/11/97	10	107
1/25/97		18
2/8/97		5
2/22/97		0
3/8/97	3	16
3/22/97		15
4/5/97		0
4/19/97		0
5/3/97		0
5/17/97		0
5/31/97		0
6/14/97		
6/28/97		
Totals	1313	602
		25

News Release!

FOR IMMEDIATE RELEASE—April 1, 1997
Contact: Lisa Hill (503) 306-5221

Oregon's Rich Cultural Heritage On-Line!

Portland, OR — The Oregon Historical Society Web site (<http://www.ohs.org>) is a one-stop journey for history surfers, educators, and armchair travelers of all ages. OHS staff members have collaborated with Thurber Technology Group to produce a Web site that will access the rich resources that Oregonians have collected and preserved since 1873.

A simple click on the site map begins your trip through Oregon's colorful cultural heritage. Access the museum's wide variety of collections ranging from an extensive film archive to maps, manuscripts, oral histories, artifacts, books and photographs. Oregon's visual and written history is now available on-line! When the search engine for the Web site is fully developed (Fall 1997) viewers will be able to access the full range of our on-line collections. For instance, choose "salmon" as a search term, and it is possible to pull up labels from canned salmon, photographs of dip-netting at Celilo Falls, statistics on salmon runs or maps showing fish wheels on the Columbia River.

An exciting feature of the OHS Web site is the Education and Outreach page with a variety of educational materials available for educators to rent. Scan the list of slide shows, artifact kits, curriculum guides, and traveling exhibits and bring history into your classroom or home! To find out what else is happening at the History Center, both the Exhibitions and Upcoming Events pages offer great activities for a group of friends, your family or for those surprise visitors from out of town. The Museum Store is also accessible via the Web site and offers a sampling of gifts from the Pacific Northwest and the Oregon Heritage Collection inspired by the collections of the Oregon Historical Society. These gifts range from Native American beadwork to colorful Pendleton blankets to a variety of books about the Northwest. Now you can shop from home with an easy-to-use order form!

The OHS Web site is made possible with the collaboration of the Portland Area Library System (PORTALS), and generous support from M.J. Murdock Charitable Trust, Meyer Memorial Trust, Lamb Foundation, Bank of America, US WEST Communications, and the Higher Education Act, Title II-B as administered by the U.S. Department of Education.

History Meets Technology

OHS Spins a Web at www.ohs.org!

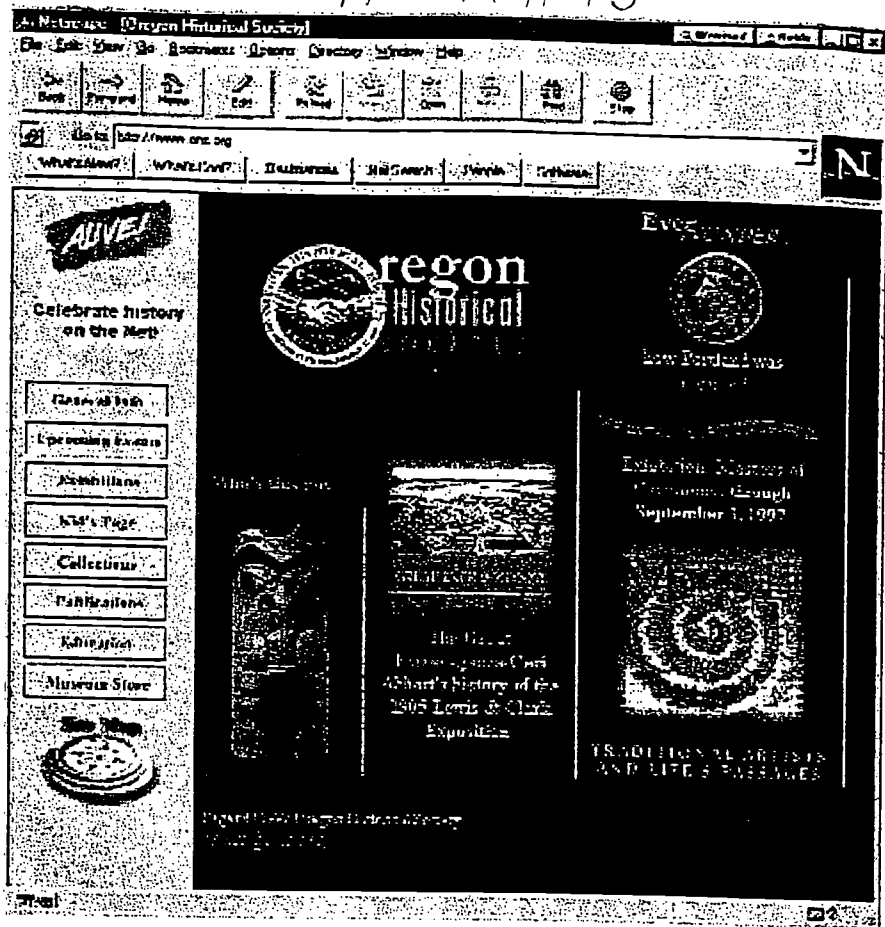
Bring the Oregon Historical Society into your home or classroom! Discover the story behind the celebrated flip of a penny that decided Portland's name. Visit a photograph gallery with a variety of historic images only a click away. Plan your weekend activities with a listing of upcoming family events. Shop for a memorable gift from the Pacific Northwest.

The Oregon Historical Society Web site is a one-stop journey for history surfers, educators, and armchair travelers of all ages. Begin with the colorful and interactive home page, and watch history come alive with an exhibition preview, new publications from the OHS Press, and, of course, the Portland Penny. OHS staff have been working with Thurber Technology Group to bring you a Web site that will help you view and access the collections Oregonians have built and preserved since 1873. We are now ready to unveil the first phase of our work!

A simple click on the site map begins your trip through Oregon's rich cultural heritage. Access the museum's wide variety of collections, ranging from an extensive film archive to maps, manuscripts, oral histories, artifacts, books, and photographs. Oregon's visual and written history is now available on-line! As the search engine for our Web site is developed (the second phase of our work), you will be able to access the full range of our on-line collections. For instance, if you choose "salmon" as a search term, you might pull up labels from canned salmon, photographs of dip-netting at Celilo Falls, statistics on salmon runs, or maps showing fish wheels on the Columbia River.

Another exciting feature of the OHS Web site is our Education and Outreach page, with a variety of educational materials available for educators to rent. Scan the exciting listing of slide shows, artifact kits, curriculum guides, and traveling exhibits, and make history come alive! Also, discover exciting educational events at the Oregon History Center from exhibition demonstrations to the Heritage Fair, which offers children a hands-on exploration of our new exhibit, "Masters of Ceremony."

To find out what else is happening at the History Center, both the Exhibitions and Upcoming Events pages feature great ideas for your next visit. Colorful icons illustrate family events, workshops, lectures, and demonstrations—a perfect way to choose



The much-anticipated Oregon Historical Society website features a handsomely designed, animated homepage, complete with flipping Portland Penny!

the right activity for a group of friends, your family, or for those surprise visitors from out of town.

Learn more about the OHS Press with information about current titles, including the popular children's line of Eager Beaver Books, and current favorites such as *Cannon Beach: A Place by the Sea* by Terence O'Donnell, Carl Abbot's *The Great Extravaganza: Portland and the Lewis and Clark Exposition*, and the acclaimed *Heritage Lost* by Fred DeWolfe. Our Web site also shows a recent listing of articles in the *Oregon Historical Quarterly*. The *Quarterly* has been published since 1900 and is our longest running "exhibit" of Oregon's diverse history.

The Museum Store is also accessible via our Web site and offers a sampling of gifts from the Pacific Northwest, including the Oregon Heritage Collection, inspired by the collections of the Oregon Historical Society. These gifts range from Native American beadwork to colorful Pendleton blankets to a variety of books about the Northwest. Now you can shop from home with an easy-to-use order form!

We are delighted to offer this innovative Web site to help you access the many wonderful treasures of the Oregon Historical Society. Thanks to a collaboration with the Portland Area Library System (PORTALS), and generous support from the U.S. Department of Education, M.J. Murdock Charitable Trust, Meyer Memorial Trust, Lamb Foundation, Bank of America, and US WEST Communications, we offer you a stunning look at Oregon's past, present—and future. Enjoy the Web site and let us know what you think!

OREGON HISTORICAL SOCIETY

1200 SW Park Avenue
Portland, OR 97205



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Visit our new
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and explore
history in
cyberspace.

see story, page 4.

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turned-OHS homepage

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NEW DEED OF GIFT " Appendix H17

WILL BE PRINTED ON LETTER HEAD
AND ON WEB PAGE A DONOR'S BROCHURE
WILL SUBSTITUTE FOR THE INFORMATION
ON REVERSE OLD DEED OF GIFT.

Deed of Gift

LESSON LEARNED IS LESS
IS BETTER LEGAL

Donor:

Date of Donation

conveys to the Oregon Historical Society all of the Donor's right, title and interest in the donated property described below. Donor agrees that, except as specifically provided in writing and attached to this deed, the donated property is conveyed without restriction and may be used in the best interests of the Society in accordance with the Collections and other policies of the Society and in effect from time to time. The donor may receive a copy of the currently applicable policies upon request.

Description of Gift:

NOTE:

Acc. 23147

Donor's Signature _____

Date: _____

(Accepted by) _____

Deputy Director, Operations and Programs

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General Outline
OREGON HISTORICAL SOCIETY COLLECTION POLICY

1. The Oregon Historical Society is a regional institution incorporated by the State of Oregon to acquire, preserve, and interpret materials that illustrate the history and development of the Pacific Northwest, especially Oregon.

All title for gifts to the Library or Museum collections is conveyed to the Oregon Historical Society.

2. LIBRARY COLLECTIONS are comprised of materials whose primary purpose is for research. Acceptable material will generally relate to documentation of the history of the Pacific Northwest and will include manuscript and printed records, photographic negatives and materials, prints, maps, and other historical source materials.

LITERARY RIGHTS: Unless otherwise restricted by copyright or by the donor and agreed to by the Society at the time of acquisition, all literary rights are conveyed to the Oregon Historical Society. The Library cannot assume responsibility for misuse of literary or copyright restrictions by users of unrestricted material beyond normal professional library ethics and standards. Material placed in the Library is primarily for research and, unless restricted, will be used for that purpose.

Library material may on occasion be used in Museum exhibitions or other educational programs.

3. MUSEUM COLLECTIONS are used for exhibit, research, and educational purposes. Acceptable material will consist of artifacts of cultural, historical, or technological significance in the illustration of Pacific Northwest history. The Museum reserves the right to determine when and how such material will be used. Because the

Museum has a flexible exhibit policy for educational and preservation purposes, artifacts on exhibit can be expected to change frequently.

4. Gifts to the LIBRARY and the MUSEUM are considered outright and unrestricted donations to be used in the best interests of the Oregon Historical Society. Usually, accepted gifts are considered extremely important or the best available at the time acquired. However, no individual or institution can predict nor govern the changing attitudes of future generations, nor guarantee permanency beyond the best available preservation procedures.

It is sometimes impractical to evaluate all materials at the time of acquisition. Upon evaluation, some material may be declared expendable. In addition, certain material already in existing collections may become expendable by acquisition of better examples. Expendable material includes surplus, duplicate, and non-relevant material as well as material of deteriorated condition or limited use. Such material will be used in the best interests of the Society, including but not limited to sale and exchange programs to acquire other needed materials, loans to schools and other institutions, and disposal if the condition or value so warrants. Any material declared expendable must be approved in accordance with the Society's deaccession policies which are subject to review by the Executive Director of the Oregon Historical Society.

5. Donations may be tax deductible. However, the Oregon Historical Society cannot appraise donations for tax purposes. For the protection of the donor, a qualified tax accountant should be consulted and any necessary appraisals completed before title to the material is conveyed to the Oregon Historical Society.

**DONATIONS
TO
THE OREGON HISTORICAL
SOCIETY COLLECTIONS**

The Oregon Historical Society collects ALL the things that tell the story of Oregon's past. Remember - history begins yesterday!

This brochure will answer some of the most frequently asked questions about gifts to the OHS collections. If your question is not answered here please contact one of our staff - making a donation is easy.

OHS looks for things that will tell future Oregonians something about the people, businesses, organizations, and events of our past. We are seeking things that say what we do, what we use, what we make, what we think, what we write about, and what we care about - at home, at work, and at play.

This is a big job. We need your help. So please think about the Oregon Historical Society and what you may have to help us tell the Oregon story.

WHAT DOES OHS WANT?

- *The item must pertain to Oregon or Pacific NW History.*
- *The item must fall within the OHS mission.*
- *The item's physical condition must be acceptable.*
- *The Society must be able to properly store and provide long-term care for the item.*
- *The donation must be an unrestricted, permanent transfer of ownership.*

OBJECTS:

- *Clothes, textiles, artwork, technology, advertising and promotional items, leisure time objects, work objects that represent diverse cultures in Oregon.*

LIBRARY MATERIALS:

- *Books, magazines, newsletters, microfilm, government documents, letters, diaries, business records, organization and club records, architectural plans, posters, advertising, photographic prints, negatives, motion pictures, home movies, videos, oral histories, and maps.*

If you aren't sure - call us. We can help you decide. More information about OHS collections can be found on the OHS web site: *WWW.OHS.ORG.*

FREQUENTLY ASKED QUESTIONS:

HOW DO I MAKE A DONATION?

- Call the appropriate department and ask.
- Make an appointment to bring the material in, or the OHS staff may visit you.

HOW DO I PREPARE MY THINGS FOR DONATION?

- Gather all material together.
- If the item(s) has a story or special history or other significant information write it down.
- Identify as much as you can - label only in number 2 or softer pencil on the back of the item or on a paper tag attached with string.
- Do not use tape, post-it notes, or ink.

WHAT'S AN APPRAISAL / DO I NEED ONE?

- An appraisal is when an expert determines the value of an item or group of materials.
- An appraisal is only necessary if the value isn't already known and if you plan to "write off" the donation on your taxes.

HOW DO I GET AN APPRAISAL?

- You must arrange to have an appraiser look at the material and you pay for their services.
- OHS can provide you with a list of appraisers, their, areas of expertise, and phone numbers.

WHY DOESN'T OHS DO APPRAISALS?

- The IRS forbids an interested party from setting an item's value - OHS becomes an interested party when it accepts the donation.

CAN I GET A TAX DEDUCTION?

- Just like any other contribution to a non-profit organization, donations can be reported on your tax returns - how much the donation is worth is determined by its value.
- Only your tax advisor can tell you whether or not your donation is a tax advantage for you.

***WHAT HAPPENS TO MY THINGS
AFTER I GIVE THEM TO OHS***

WHERE ARE THEY NOW?

- Your donation is first recorded on a receipt, then a "Deed of Gift" is created for you to sign. This transfers legal ownership to OHS.
- The item or collection of items goes to the Curator or Librarian responsible for that type of material. They evaluate its condition, decide if it needs repair and determine how best to use it. Finally the items are entered in OHS' catalogs so they can be located when needed and the information used by researchers.
- After all the preparation work is done the material is grouped and stored with like material until it is needed for exhibit or research. OHS stores things both in the History Center and a secured storage facility.

WILL YOU DISPLAY MY DONATION?

- Exhibits are changed periodically and each exhibit represents a theme. OHS has limited exhibit space and many things. Long term display is detrimental to many objects, some things are too fragile to put on exhibit, but they are available for researchers.

WHO DO I TALK TO?

If you have more than one type of material to donate, talk to the staff in the department for which you have the most things. You may wind up talking to more than one department.

- OBJECTS: (503) 306-5274
- BOOKS, MAGAZINES, NEWSLETTERS:
(503) 306-5245
- PERSONAL/FAMILY PAPERS &
LETTERS
BUSINESS & ORGANIZATION RECORDS
ARCHITECTURAL PLANS:
(503) 306-5247
- PHOTOGRAPHS: (503) 306-5250
- MOTION PICTURES & VIDEOS:
(503) 306-5256
- MAPS: (503) 306-5248
- SOUND RECORDINGS & ORAL
HISTORY
(503) 306-5246
- GENERAL: all types of collections -
(503) 306-5260

IMPORTANT:

• Please remember that the staff person you want to talk to is not always immediately available. Because we do not want to miss your call - it is important to use the OHS voice mail system. If you cannot reach the staff person you are calling please leave your name, phone number, and the best time to reach you.
Thank you!

PLANNED GIVING / BEQUESTS

- You may not want to donate your item or collection now - but may wish to thoughtfully plan for the future. Like monetary bequests you can also make bequests of objects, books, papers, photographs or other documents in your will. If it is a large collection a sum of money to aid processing is also appropriate. You may wish to consult your tax advisor. Please contact the OHS Development Department,

PRESERVATION

- You can help safeguard your material. Providing a safe secure storage environment will protect your pieces of Oregon's history. Keep your collections out of extreme temperatures, light or humidity. If in doubt don't make any repairs. OHS can provide you with a list of suppliers for museum and archive quality storage materials.

CONSERVATION

- Conservation - or to use a more general term "repair" - is a big concern and an even bigger topic. There are as many different methods of conservation as there are different types of materials. It is best to know what you are doing before you undertake any repair. Better yet, get expert advice. The Oregon Historical Society can provide you with a list of experts.

**The Oregon Historical Society
at The Oregon History Center
1200 S.W. Park Avenue
Portland, Oregon 97205
(503) 222-1741 FAX (503) 221-2035**

<http://www.ohs.org>

INFORMATION NOW ON WEB SITE UNDER DONATION

HOME

OHS

COLLECTIONS

Collection Policy

General Outline

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orhist@ohs.org

World-Wide Web Access Statistics for WWW.OHS.ORG

Last updated: Fri, 06 Jun 1997 07:52:57 (GMT -0700)

- [Daily Transmission Statistics](#)
- [Hourly Transmission Statistics](#)
- [Total Transfers by Client Domain](#)
- [Total Transfers by Reversed Subdomain](#)
- [Total Transfers from each Archive Section](#)
- [Previous Full Summary Period](#)

Totals for Summary Period: Apr 1 1997 to Jun 6 1997

Files Transmitted During Summary Period	200798
Bytes Transmitted During Summary Period	1046202231
Average Files Transmitted Daily	2997
Average Bytes Transmitted Daily	15614959

Daily Transmission Statistics

%Reqs	%Byte	Bytes Sent	Requests	Date
1.50	1.10	11467184	3019	Apr 1 1997
1.80	1.21	12666210	3608	Apr 2 1997
1.88	1.53	16021475	3772	Apr 3 1997
1.06	0.90	9416532	2137	Apr 4 1997
0.64	0.56	5880171	1284	Apr 5 1997
0.28	0.26	2699342	559	Apr 6 1997
1.04	0.88	9199956	2096	Apr 7 1997
8.05	9.09	95133630	16158	Apr 8 1997
4.51	4.95	51789926	9064	Apr 9 1997
3.41	3.02	31599386	6843	Apr 10 1997
1.68	1.79	18747536	3378	Apr 11 1997
1.15	1.13	11853017	2306	Apr 12 1997
0.96	1.25	13069652	1923	Apr 13 1997
1.58	1.48	15484241	3169	Apr 14 1997
2.34	2.01	21031863	4690	Apr 15 1997
1.44	1.31	13689809	2885	Apr 16 1997
2.96	3.66	38343291	5945	Apr 17 1997
2.94	3.89	40689447	5906	Apr 18 1997
1.24	1.20	12591514	2498	Apr 19 1997
0.86	1.11	11657827	1717	Apr 20 1997
1.74	2.00	20944798	3485	Apr 21 1997
1.73	1.59	16587145	3464	Apr 22 1997
2.16	2.22	23243768	4342	Apr 23 1997
1.66	1.62	16963196	3327	Apr 24 1997
1.13	1.27	13248726	2271	Apr 25 1997
0.79	0.88	9211748	1589	Apr 26 1997
0.75	0.96	10082462	1513	Apr 27 1997
1.62	1.57	16378303	3260	Apr 28 1997
2.05	1.92	20036429	4126	Apr 29 1997
1.73	1.46	15321510	3476	Apr 30 1997

375

1.74	1.55	16169430	3492		May	1	1997
2.04	2.07	21659616	4091		May	2	1997
1.37	1.45	15216731	2755		May	3	1997
0.68	0.60	6229849	1370		May	4	1997
1.39	1.23	12842059	2796		May	5	1997
1.13	0.74	7700097	2269		May	6	1997
1.28	1.28	13409889	2566		May	7	1997
1.27	1.16	12100500	2542		May	8	1997
0.85	0.69	7215843	1705		May	9	1997
0.67	0.65	6774589	1342		May	10	1997
0.37	0.29	3041487	738		May	11	1997
1.47	1.59	16650947	2943		May	12	1997
1.54	1.36	14254470	3089		May	13	1997
1.02	0.97	10116793	2056		May	14	1997
1.24	1.36	14252018	2497		May	15	1997
1.17	1.22	12761568	2343		May	16	1997
0.33	0.33	3477320	654		May	17	1997
0.57	0.63	6565935	1139		May	18	1997
1.36	1.20	12544155	2722		May	19	1997
1.45	1.12	11720706	2906		May	20	1997
1.68	1.76	18430826	3380		May	21	1997
1.95	1.81	18981264	3907		May	22	1997
1.25	1.23	12914393	2500		May	23	1997
1.15	1.02	10672234	2312		May	24	1997
0.53	0.56	5872242	1060		May	25	1997
0.50	0.61	6402158	1003		May	26	1997
0.93	0.78	8161333	1869		May	27	1997
1.82	1.79	18684157	3650		May	28	1997
2.00	1.99	20860004	4012		May	29	1997
1.18	1.25	13109785	2370		May	30	1997
0.78	0.82	8630463	1571		May	31	1997
0.95	1.83	19099542	1917		Jun	1	1997
1.27	1.26	13149814	2546		Jun	2	1997
1.26	1.22	12729717	2539		Jun	3	1997
1.64	1.49	15541460	3288		Jun	4	1997
1.44	1.21	12681191	2883		Jun	5	1997
0.08	0.05	527552	166		Jun	6	1997

Hourly Transmission Statistics

%Reqs	%Byte	Bytes Sent	Requests	Time
0.92	1.16	12094363	1853	00
0.37	0.53	5573690	734	01
0.38	0.48	5024792	766	02
0.36	0.49	5080743	728	03
0.47	1.25	13071555	934	04
0.66	0.78	8207300	1319	05
1.22	1.22	12758830	2447	06
2.82	3.08	32198883	5655	07
5.96	5.75	60193821	11962	08
7.65	6.44	67332324	15357	09
8.50	7.81	81723437	17071	10
8.46	8.78	91807049	16990	11
7.77	7.48	78252857	15597	12
8.09	6.89	72032345	16247	13
8.28	7.25	75833539	16633	14
7.50	7.16	74890311	15057	15
7.32	6.79	70988348	14691	16
4.84	5.33	55737215	9724	17

376

3.76	4.08	42683560	7541		18
4.05	4.48	46864436	8137		19
3.68	4.24	44328080	7382		20
3.31	3.94	41234870	6649		21
2.28	2.80	29242024	4571		22
1.37	1.82	19047859	2753		23

Total Transfers by Client Domain

%Reqs	%Byte	Bytes Sent	Requests	Domain
0.05	0.07	685464	106	at Austria
0.11	0.11	1174516	216	au Australia
0.27	0.35	3696709	537	ca Canada
0.05	0.05	512713	96	de Germany
0.02	0.01	153429	33	fi Finland
0.02	0.02	228148	47	it Italy
0.06	0.09	924489	111	jp Japan
0.03	0.03	324859	62	kr Korea (South)
0.01	0.01	71970	17	nl Netherlands
0.01	0.00	46656	14	no Norway
0.01	0.01	126562	22	pt Portugal
0.00	0.00	39235	5	ro Romania
0.04	0.05	536901	85	uk United Kingdom
5.65	6.53	68306323	11355	us United States
31.12	36.86	385649743	62490	com US Commercial
5.72	6.37	66598704	11489	edu US Educational
0.50	0.54	5667795	1009	gov US Government
0.10	0.14	1503082	191	mil US Military
10.77	12.06	126182958	21631	net Network
2.79	4.00	41847715	5610	org Non-Profit Organization
0.03	0.02	191538	69	arpa Old style Arpanet
42.63	32.66	341732722	85603	unresolved

Total Transfers by Reversed Subdomain

%Reqs	%Byte	Bytes Sent	Requests	Reversed Subdomain
0.06	0.08	815405	123	1.1.142.169
0.06	0.10	1007398	115	1.119.211.140
0.06	0.02	238103	111	1.16.49.207
0.03	0.03	317929	56	1.189.100.206
0.01	0.01	144774	26	1.2.134.134
0.02	0.02	172864	36	1.220.2.199
0.01	0.01	114354	18	1.49.203.204
0.17	0.22	2310992	343	10.17.49.207
0.06	0.07	705910	121	10.244.220.192
0.07	0.07	778403	134	100.199.121.163
0.25	0.29	3045719	493	100.4.236.198
0.03	0.05	503623	68	101.137.220.192
0.08	0.09	900279	154	101.139.220.192
0.04	0.03	364213	86	101.144.145.198
0.03	0.02	230179	70	101.26.53.137
0.03	0.03	357127	62	102.141.220.192
0.01	0.00	46656	14	102.249.185.202
0.00	0.00	392	4	102.250.35.153



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